# FINAL

## ENVIRONMENTAL IMPACT REPORT
## FOR THE
## LAFAYETTE REDEVELOPMENT PROJECT

SCH #94033001



*Prepared For The*

Lafayette Redevelopment Agency

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REVISIONS HAVE BEEN MADE TO THE TEXT PREVIOUSLY CONTAINED WITHIN THE DRAFT EIR TO ACCOMODATE ALL DRAFT EIR RESPONSES. ALL INFORMATION THAT HAS BEEN ADDED WITHIN THE FINAL EIR IS REDLINED. ALL INFORMATION THAT WAS DELETED HAS BEEN ~~STRUCK OUT~~.

THE REVIEW PERIOD FOR DRAFT ENVIRONMENTAL IMPACT REPORT (DRAFT EIR) BEGAN ON SEPTEMBER 14, 1994 AND WILL END ON NOVEMBER 17, 1994. SINCE ALL OF THE COMMENTS ON THE DRAFT EIR HAVE NOT BEEN RECEIVED BY THE AGENCY, SECTION 8.0 (COMMENTS RECEIVED ON THE DRAFT EIR) AND SECTION 9.0 (RESPONSES TO COMMENTS RECEIVED ON THE DRAFT EIR) ARE NOT INCLUDED AS PART OF THE FINAL EIR. HOWEVER, THESE SECTIONS WILL BE DISTRIBUTED AS A SUPPLEMENT TO THE FINAL EIR NO LATER THAN NOVEMBER 23, 1994.

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# EXECUTIVE SUMMARY

## E.0 EXECUTIVE SUMMARY

General Overview

The Lafayette Redevelopment Agency (the "Agency") is proposing establishment of the Lafayette Redevelopment Project (the "Plan" or "Project"). The Agency, as part of its broader purpose, proposes to establish the Plan for the purpose of carrying out activities related to upgrading public facilities and improving the quality of life for residents within the territory to be included within the Project (the "proposed Project Area"). The proposed Project Area consists of approximately 294 acres located in the commercial district along the Mt. Diablo Boulevard Corridor (the "Corridor Area") in the City of Lafayette (the "City").

The need to revitalize and upgrade the proposed Project Area is necessary in order to increase sales, business and property tax revenues, provide adequate roadways and related infrastructure, provide employment opportunities, provide improvements to community facilities, improve public utility infrastructure deficiencies, assure social and economic stability, and promote aesthetic and environmental actions and improvements.

The specific location and boundaries of the approximately 294 acre proposed Project Area are presented in Section 1.2 of this report. Currently, the proposed Project Area consists of urbanized, unimproved and previously urbanized land. The following existing land uses are found within the proposed Project Area: residential, commercial, public, quasi-public, parkland, previously urbanized, unimproved, and public rights-of-way.

The following General Plan land uses are designated within the proposed Project Area: residential, commercial, office, and public rights-of-way.

## E.1 SUMMARY OF ENVIRONMENTAL ANALYSIS

The following is a brief summary of Project impacts and recommended mitigation measures that are described in Chapter 2.0, Environmental Impact Analysis, of this EIR.

### E.1.1 LAND USE

Impacts

The adoption of the Plan, in and of itself, will involve no significant negative impacts to existing land uses within the proposed Project Area. Generally, all impacts to land use are expected to be positive in nature. The Plan and related projects may be the catalyst for future private development and investment upon currently underutilized residential and undeveloped properties in accordance with the City's General Plan Land Use Element.

Infrastructure and rights-of-way improvement projects will result in improved circulation and traffic conditions within the proposed Project Area (see Appendix A). Existing and future land uses within the proposed Project Area will also be complemented by projects that will improve deficient and inadequate gutters, water lines, storm water and drainage control systems, streets, curbs, and sidewalks.

Mitigation Measures

No mitigation measures are recommended as conditions of Project approval.

Implementation of redevelopment projects, by encouraging orderly development that is consistent with the goals and objectives of the City's General Plan, will serve to alleviate the existing negative economic and physical trends which presently impact the proposed Project Area's land resources.

E.1.2 DEMOGRAPHICS

Impacts

All impacts resulting from implementation of the Plan are expected to be positive. The Plan will increase the City's affordable housing stock, be the catalyst for new commercial development and rehabilitation and provide funding for the improvement of public facilities.

Mitigation Measures

No mitigation measures are recommended as a condition of Project approval. The Plan proposes housing and community development programs and public facilities/works projects which are consistent with, and conform to, the City's General Plan. The proposed projects generally described in Appendix A are measures to alleviate existing deficiencies as described in Section 1.4 of this document and within the Preliminary Report, and are intended to facilitate future economic and physical development within the proposed Project Area and the City as a whole. The location of land uses and densities shall reflect those in the current General Plan, and as the General Plan is amended from time to time by due process.

E.1.3 NOISE

Impacts

Short-Term

Implementation of the Plan will generate, directly or indirectly, a variety of construction projects. These projects will include, but not be limited to, construction and/or rehabilitation of residential and commercial facilities, and roadway and utility infrastructure improvement projects. Development of these projects will generate, to varying degrees, an increase in short-term noise levels caused by construction equipment and related processes.

Long-Term

An increase in the proposed Project Area's ambient noise levels could occur over the long-term caused by increased growth and activity within the proposed Project Area. Any long-term increase in ambient noise levels will be at levels permitted within the City's General Plan and Zoning Ordinance; these increased noise levels are generally seen as acceptable conditions within the existing parameters of the proposed Project Area's urban setting.

Mitigation Measures

The following mitigation measures are recommended as conditions of Project approval:

Short-Term

1. All Plan-related structures or properties involved in rehabilitation/development activities shall comply with the policies outlined in the Noise Element of the Lafayette General Plan.

2. All Project related construction projects shall be reviewed on a project-by-project basis by the appropriate City department to determine possible short-term noise impacts upon identified sensitive noise receptors and to determine the need for Project specific acoustical analysis. Impacts determined to be significant in Project specific acoustical analysis shall be appropriately mitigated.

~~3. All construction activities shall be limited to daytime hours.~~

3. All construction equipment used for Project related construction activities shall be fitted with exhaust muffling and noise control filter devices to reduce noise impacts.

Long-Term

1. All Plan-related structures or properties involved in rehabilitation/development activities shall comply with the policies outlined in the Noise Element of the Lafayette General Plan.

2. All development projects shall be reviewed on a project-by-project basis by the appropriate City department to determine possible long-term noise impacts upon identified sensitive noise receptors and the need for Project specific acoustical analysis. Impacts determined to be significant shall be appropriately mitigated.

3. Future developments initiated through implementation of the Project shall be allowed only in the areas as designated for that particular land use by the City's General Plan and Zoning Ordinance to ensure land use compatibility which will lessen noise impacts upon sensitive noise receptors. As a basis for general compliance, all related long-term site specific land use activities shall adhere to the policies outlined in the Land Use Element of the City's General Plan.

4. Building setbacks and noise barriers shall be considered and used where appropriate in conjunction with specific development proposals in the proposed Project Area to limit stationary and vehicular long-term noise impacts upon sensitive noise receptors.

While not recommended as conditions of Project approval, the following policies are suggested for the decision making body's consideration as ways to further reduce long-term noise impacts:

- Separate residential uses and truck routes so that noise impacts will be contained without unnecessarily lengthening truck trips.

- Restrict trucking hours in residential neighborhoods.

- Minimize stop signs and signals along truck routes; set speed limit based on safety and noise limitation standards.

Level of Significance After Mitigation

Insignificant

E.1.4 AIR QUALITY

Impacts

Short Term

Temporary impacts will result from Project related construction activities. Air pollutants will be emitted by construction equipment and dust will be generated during grading and site preparation. Because the specifics of future Plan related projects are not known at this time, dust generated by grading or other construction activities cannot be adequately determined at this time; redevelopment of the proposed Project Area will occur over the next 30 years.

Long-Term Impacts

The main source of emissions generated by the Plan's implementation will be from motor vehicles. City-wide, personal commuting, office worker and retail site customer travel will add to City-wide trip generation and increase the vehicle miles traveled within the local air shed. Locally, project related traffic, especially at a.m. and p.m. peak hours, will be added to the local roadway system. Other emissions will be generated from the residential and commercial combustion of natural gas for space heating and other uses as well as the generation of electricity.

Mitigation Measures

The following mitigation measures are recommended as conditions of Project approval:

Short-Term

1. All Plan-related structures and properties involved in rehabilitation/ development activities shall comply with the affected policies pertaining to air quality as outlined in the Lafayette General Plan.

2. To minimize dust generation during grading operations AQMD Rule 403 shall be adhered to which will require watering during earth moving operations.

3. In order to reduce pollutant emissions from construction equipment it shall be properly maintained and tuned.

Long-Term

1. All Plan-related structures and properties involved in rehabilitation/ development activities shall comply with the affected policies pertaining to air quality as outlined in the Lafayette General Plan.

2. To ensure all future Plan related development and/or construction projects meet emissions standards set by the BAAQMD, all projects shall be subject to air quality analysis on a project-by-project basis if that Project meets or exceeds the potentially significant air quality impacts shown on Table 8 in

Section 2.4, Air Quality. Such analysis shall determine specific project impacts and establish adequate, long-term measures to mitigate impacts if any are determined to exist.

3. The design and development of pedestrian walkways and bicycle trails shall be encouraged within the Project Area as a means for reducing motor vehicle traffic and air pollution emissions.

While not recommended as conditions of Project approval the following recommendations, where applicable and feasible, are presented as examples for the decision making body's consideration to further reduce potential short-term and long-term impacts to air quality:

Short-Term

a. Minimize Construction Activity Emissions:

- Water site and clean all equipment in the morning and evening.
- Spread soil binders on site, unpaved roads, and parking areas; re-establish ground cover through seeding and watering.
- Employ activity management techniques: increase the distance between the emission sources; reduce or change the hours of construction; schedule activity during off-peak-hours; and require a phased-schedule for construction activities to even out emission peaks.
- Remove silt by paving construction roads, and sweeping streets, and wash trucks leaving construction site.
- Suspend grading operations during first and second stage smog alerts.
- Maintain construction equipment engines by keeping them tuned.
- Use low-sulfur fuel for equipment.
- Avoid using temporary power; use power from the grid instead.

b. Reduce Construction-Related Traffic Congestion

- Provide rideshare incentives, and transit incentives for construction personnel.
- Configure construction parking to minimize traffic interferences.
- Minimize obstruction of through traffic lanes.
- Provide a flagperson to guide the traffic properly.
- Schedule operations affecting traffic during off-peak-hours.

c. Limit Emissions From Architectural Coatings and Asphalt Usage.

- Use low-coating systems where possible.
- Substitute reactive solvents with nonreactive solvents.
- Improve transfer efficiency when solvent-based paints are used.
- Use high-solid or water-based coatings.
- Finish exterior walls of buildings with light-colored materials.

Long-Term

Support and compliance with the Air Quality Management Plan (AQMP) for the City and the surrounding areas is the most important measure to achieve this goal. The

AQMP includes improvement of mass transit facilities and implementation of vehicular usage reduction programs. Additionally, energy conservation measures are included. Specific measures which may be appropriate for the proposed Project include:

a. Limit Emissions From Vehicle Trips

- Encourage the use of alternate transportation modes by promoting public transit usage and providing secure bicycle facilities.
- Provide mass transit accommodations; such as bus turnout lanes, park and ride areas, and bus shelters.
- Provide energy conserving street lighting.
- Provide traffic signal synchronization where feasible.
- Provide sufficient service establishments within the office area.
- Encourage formation of van-pools with company vehicles or subsidy and encourage public transit passes.
- Provide landscaping with native drought resistant plant species to shade buildings during summer.
- Operate a Trip Reduction Plan.
- Establish telecommuting programs, alternative work schedules, and satellite work centers.
- Schedule goods movements for off-peak traffic hours.
- Provide local shuttle and regional transit systems, transit shelters, bicycle lanes, storage areas, and amenities, and ensure efficient parking management.
- Provide dedicated turn lanes as appropriate.
- Encourage a telecommuting center outside the Central Business District to reduce VMT.
- Include energy costs in capital expenditure analyses.
- Minimize power distribution losses by using dry transformers, high voltages, three phases, and step-downs, where necessary.
- Use devices that minimize the combustion of fossil fuels.

b. Minimize Energy Requirements of Buildings:

- Improve thermal integrity of buildings, and reduce thermal load with automated time clocks or occupant sensors.
- Introduce glazed windows, wall insulation, and efficient ventilation methods; install window-systems to reduce thermal gain and loss.
- Introduce efficient heating and other appliances, such as water heaters, cooking equipment, refrigerators, furnaces and boiler units.
- Incorporate appropriate passive solar design and solar heaters.
- Replace incandescent indoor lighting with fluorescent lamps, and outdoor lighting with halogen lights.
- Capture waste heat and re-employ this heat, in nonresidential buildings, where feasible.
- Limit installed lighting loads to an average of about 2.3 watts per square feet of conditioned floor area.
- Recycle lighting system's heat for space during cool weather; and the exhaust system through plenums during warm weather.
- Install low- and medium-static-pressure terminals in air distribution systems.
- Ensure proper sealing of all buildings, where applicable.
- Design facility entrances with vestibules, where possible.

- Install individually-controlled light switches and thermostats to permit individual adjustments.
- Control mechanical systems, or equipment with time clocks or computer systems.

c. Minimize Potential Exposure of the Public to Air Toxic Emissions:

- Integrate additional mitigation measures into site design such as the creation of buffering areas between a potential sensitive receptor's boundary and potential pollution sources.
- Minimize population-exposure to asbestos emissions and take precautions including, but not limited to, those recommended in Rule 1403.

Level of Significance After Mitigation

Less-than-significant

## E.1.5 EARTH RESOURCES

Impacts

It is probable that portions of the proposed Project Area will be subjected to one or more significant groundshaking events during its lifetime. Damage to structures could occur and public safety could be threatened if new structures are not constructed to withstand anticipated maximum ground shaking events. However, this is an impact inherent to most areas of California. As such, it is not anticipated that the Plan will exacerbate existing public safety concerns.

Implementation of the Plan should beneficially affect existing structures and supportive infrastructures within the proposed Project Area by providing rehabilitation programs for upgrading deficiencies where such improvement is warranted.

Mitigation Measures

The following mitigation measures are recommended as conditions of Project approval:

1. Geotechnical and soils engineering reports shall be prepared in conjunction with the preparation of preliminary design layouts and grading plans for Plan-related development projects within the proposed Project Area. These studies will determine specific areas of hazardous soil conditions in those areas generally identified under A. Existing Conditions herein.

   These reports will provide specific mitigation measures for the treatment of potential geological hazards including seismic shaking, liquefaction and other hazardous soil conditions.

2. There are four related initial actions which the City of Lafayette and the Agency shall follow to ensure mitigation of seismic related hazards:

   a. Utilize geologic and seismic data in land planning so that identified risk areas, if any, are avoided or structures and landforms treated and designed to reflect local site conditions;

b. Make sure that local grading and building codes reflect measures to minimize possible seismic damage;

c. Inspect older buildings and improve earthquake design features when possible;

d. Maintain a disaster preparedness plan.

3. All Plan-related rehabilitation/development activities shall be subjected to the policies as outlined in the Lafayette General Plan.

4. The faults identified in A. Existing Conditions are considered to be seismically active and capable of generating major earthquakes. The direct impacts of these faults upon proposed projects shall be considered during preliminary planning processes, as deemed necessary by Project specific environmental impact analysis.

5. The geotechnical and soils report recommendations as stipulated in C. Mitigation Measures, 1., of this Section, shall be incorporated into the design of new building foundations and roadways.

6. All rehabilitation and new development projects implemented as a result of the proposed Project, shall be built in accordance with current and applicable Uniform Building Code standards and all other applicable City, County, State and Federal laws, regulations and guidelines, which may limit construction and site preparation activities such as grading, and make provisions for appropriate land use restrictions, as deemed necessary, to protect residents and others from potential environmental safety hazards, either seismically induced or those resulting from other conditions such as inadequate soil conditions, as generally described under A. Existing Conditions, which may exist in the proposed Project Area.

Level of Significance After Mitigation

Insignificant

## E.1.6 TRANSPORTATION AND CIRCULATION

Impacts

Long-Term

Assuming General Plan build-out, Project implementation could result in the generation of increased traffic volumes within the proposed Project Area and its surrounding environs due, in part, to an increase in the proposed Project Area's economic viability and improved employment base. Project implementation will, as part of its broader purpose, serve to mitigate existing circulation deficiencies within the proposed Project Area through the implementation of traffic/circulation improvement projects. Such projects will be consistent with the General Plan and will include, but may not be limited to, improved signalization and lighting, resurfacing programs and installation of curbs, gutters and sidewalks and landscaping. The expected degree of impact can be successfully mitigated to a level of insignificance.

The Bay Area Rapid Transit and the local public transit system could increase in rideship due to the potential intensification of land uses in accordance with the Lafayette General Plan in and around the BART station and the Mt. Diablo Blvd. corridor area in general.

Short-Term

Temporary traffic disruptions could occur as a result of roadway improvement projects.

Mitigation Measures

**Vehicular Transportation**

The following mitigation measures are recommended as a condition of Project approval:

Long-Term

1. Projected Plan-related increases in ADTs upon proposed Project Area roadways are not expected to significantly impact existing roadway Levels of Service over the long term in most instances. However, since project related site specifics are not known, such as type, size and location of potential developments, all impacted roadway segments as a result of proposed Plan-related projects shall be evaluated on a project-by-project basis to determine specific project impacts including an evaluation of the cumulative impacts of development upon those roadway segments. Analyses shall include intersection capacity analysis and roadway segment trip assignment rates as necessary. Projects found to cause significant impacts to the existing LOS shall include measures to lessen project related impacts.

2. All Plan-related structures and properties involved in rehabilitation/ development activities shall comply with the Lafayette General Plan.

Short Term

1. Short term impacts to motorists, pedestrians and bicyclists shall be mitigated with the use of standard safety precautions generally employed during project construction, e.g., rerouting of traffic, use of flagmen, public notice of route closures and detours and other precautions and safeguards as may be deemed applicable by the appropriate City regulating body.

**Public Transit**

No mitigation measures are recommended as conditions of Project approval.

Level of Significance After Mitigation

Insignificant

## E.1.7 BIOLOGICAL RESOURCES

Impacts

Future development and redevelopment of the proposed Project Area, in accordance with the City's General Plan, City Zoning Ordinance, and all other applicable City, County, State and Federal laws, guidelines and regulations, could result in the elimination and/or displacement of assorted native and non-native plant species (primarily weeds) and some small rodents and mammals located in the proposed Project Area. However, this potential disruption to existing biological resources will not have a significant impact on the proposed Project Area's biotic communities due to their exiting degree of urbanization and amount of vacant/unimproved land within the proposed Project Area.

Mitigation Measures

The following mitigation measures are recommended as a condition of project approval:

1. Discretionary development which could potentially impact biological resources shall be evaluated prior to project approval by a qualified biologist to assess impacts and if necessary, to develop mitigation measures. This evaluation shall include a complete assessment of all biological resources within the adjacent to the affected portions of the proposed Project Area with particular emphasis placed upon identifying endangered, threatened and locally unique species and sensitive and critical habitats.

2. Discretionary development shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.

3. The California Department of Fish and Game, ~~the U.S. Fish and Wildlife Service, National Audubon Society and the California Native Plant Society~~ shall be consulted when discretionary development may affect significant biological resources. Notice shall be made to the Department of Fish and Game after the lead Agency has approved any project that will cause the diversion or obstruction of the natural flow or cause changes in the riverbed, channel or bank of any river, stream or lake. An agreement with the Department of Fish and Game must be made prior to initiating any such changes consistent with the Department of Fish and Game statutory authority.

Level of Significance After Mitigation

Insignificant

## E.1.8 PUBLIC SERVICES AND UTILITIES

Impacts

The following significant impacts could occur as a result of the Plan's implementation: 1) Increased demand upon police and fire services; 2) the potential for increased growth, thereby, impacting City schools; 3) Increased demand upon water distribution

facilities; 4) Increased demand on sewage treatment facilities; 5) Increased demand upon solid waste landfill facilities; and 6) Increased demands for service placed upon electrical and gas service purveyors.

Assuming General Plan build-out at maximum development densities (Table 1 of Section 1.6), the following impacts could affect related public services and utilities over the long-term:

| | |
|---|---|
| Water: | 23,892 additional gallons per day |
| Sewage: | 13,200 additional gallons per day |
| Solid Waste: | 136 additional tons per year |
| Schools: | 69 school age children (approximately 2 new students per year over the life of the Plan) |

Evaluation of each of these areas of concern has shown that while increases would be present over the long-term, no significant long-term negative impacts will be affected by the Plan's long-term implementation. The evaluation was undertaken using General Plan build-out at maximum development densities (reference Section 1.6); build-out impacts were assessed from year one and prorated over the life of the 30-year Plan.

Mitigation Measures

No mitigation measures are recommended as a condition of Project approval for parks and recreation, wastewater, solid waste, schools, and public utilities.

The following mitigation measures are recommended as conditions of Project approval for water resources, police protection, fire protection, and flood control/drainage.

***Water Resources***

While the average yearly proposed Plan-related increase in water consumption is not projected to be significant as described above, conditions could change significantly over the 30-year life of the proposed Plan. As such, the following mitigation measures are recommended as conditions of Project approval:

1. All Plan-related growth inducing projects shall be evaluated by Agency staff working with City staff on a project-by-project basis to determine their impact upon local water resources. No project shall be approved unless available water resources are adequate to meet projected demand.

The conservation of water should be of significant concern to all citizens in California, and some conservation proceedings are presently mandated by state legislation. While not recommended as a condition of Project approval, the following measures should be implemented for all proposed Plan related construction projects when appropriate to comply with state legislation:

- Plumbing fixtures that reduce water usage should be utilized (i.e., low volume toilet tanks, flow control devices for faucets and shower heads) in accordance with Title 24 of the California Administrative

Code.

- The use of drought-tolerant plant species and drip irrigation systems shall be in conformance with AB 325 (1992) in order to reduce water usage.

- Installation of ultra-low flush toilets in all new construction: in accordance with Health and Safety Code Section 17921.3 should occur three gallons per flush.

- Installation of low flow showers and faucets in accordance with California Administrative Code, Title 24, Part 6, Article 1, T20-1406F should occur.

- Future developers should be assessed a water capacity fee for importation and distribution facilities.

Recommendations to be implemented where applicable:

Interior:

- Supply line pressure: recommend water pressure greater than 50 psi be reduced to 50 psi or less by means of pressure-reducing valve.

- Flush valve operated water closets: recommend three gallons per flush or less if possible.

- Drinking fountains: recommend installation of self-closing valves.

- Pipe insulation: recommend all hot water lines in dwelling units be insulated to provide hot water quickly with less water and to prevent hot pipes from heating cold pipes.

- Restaurants: use of water-conserving models of dishwashers or retrofitting spray emitters and serving of water at patron request only.

- Hotel rooms: conservation reminders be posted in rooms and restrooms. Thermostatically controlled mixing valve be installed for bath/shower.

- Laundry facilities: water-conserving models of washers be used.

Exterior:

- Use mulch extensively in all landscaped areas. Mulch applied to top soil will improve the water-holding capacity of the soil by reducing evaporation and soil compaction.

- Preserve and protect existing trees and shrubs. Established plants are often adapted to low water conditions and their use saves water needed to establish replacement vegetation.

- Landscape with low water-using plants wherever feasible.

- Minimize use of lawn by limiting it to lawn-dependent uses, such as playing fields. When lawn is used, require warm season grasses.

- Group plants of similar water use to reduce over-irrigation of low-water-using plants.

- Provide information to occupants regarding benefits of low-water-using landscaping and sources of additional assistance.

- Install efficient irrigation systems that minimize runoff and evaporation and maximize the water that will reach the plant roots. Drip irrigation, soil moisture sensors, and automatic irrigation systems are a few methods of increasing irrigation efficiency.

- Use pervious paving material whenever feasible to reduce surface water runoff and to aid in ground water recharge.

- Grade slopes so that runoff of surface water is minimized.

- Investigate the feasibility of using reclaimed waste water, stored rainwater, or grey water for irrigation.

- Encourage cluster development, which can reduce the amount of land being converted to urban use. This will reduce the amount of impervious paving created and thereby aid in ground water recharge.

- Preserve existing natural drainage areas and encourage the incorporation of natural drainage systems in new developments. This aids ground water recharge.

- To aid in ground water recharge, preserve flood plains and aquifer recharge areas as open space.

***Police Protection***

The following mitigation measures are recommended as conditions of Project approval:

1. All proposals shall be reviewed on a project-by-project basis by the Lead Agency in conjunction with the Contra Costa Sheriff's Department to determine the need for specific project environmental impact analysis.

2. In the event an analysis is deemed necessary, and said analysis shows evidence of significant negative impact to existing police services-facilities, appropriate mitigations shall be incorporated into the project(s) by the project proponent prior to project(s) approval.

***Fire Protection***

The following mitigation measures are a condition of Project approval:

1. All growth inducing Projects shall be reviewed on a project-by-project basis by the Lead Agency in conjunction with fire department officials to determine the need for specific project environmental impact analysis.

2. In the event an analysis is conducted and said analysis shows evidence of significant negative impact to existing fire services/facilities, such that existing levels of service and emergency response times deteriorate beyond acceptable levels, the Project proponent shall work with Agency/City staff to develop appropriate mitigation measures which shall be incorporated into the project(s) prior to the project(s) approval.

While not recommended as conditions of Project approval the following recommendation is presented as an example for the decision making body's consideration:

- There is a need to address inadequate fireflow and access problems. New construction should not be allowed without adequate fireflow and access.

***Flood Control/Drainage***

The following mitigation measures are recommended as conditions of Project approval:

1. All Plan-related, growth-inducing projects shall be evaluated by Agency staff working with City staff on a project-by-project basis to determine their impact on flood control/drainage and water quality. No project shall be approved unless there is adequate on-site drainage and no significant impacts to water quality.

While not recommended as a condition of Project approval, the following recommendations are presented for the decision-making body's consideration to further reduce potential flood impacts to proposed Project Area people and structures:

- All building structures should be protected against a 100-year flood.
- At least one route of ingress and egress to the development should be available during a 100-year flood.
- The slope and foundation designs for all structures should be based on detailed soils and engineering studies, especially for hillside developments.
- Grading should be limited to dry months to minimize problems associated with sediment transport during construction.

Level of Significance After Mitigation

Insignificant

## E.1.9 CULTURAL RESOURCES

Impacts

Future Plan-related development has the potential to adversely affect historic sites and structures in the proposed Project Area. Development occurring under the proposed Plan has the potential to disturb unknown archaeological resources and could result in the destruction of these resources. Based upon the significance thresholds, the

proposed Plan will have potential significant impacts upon historic and archaeological resources.

Mitigation Measures

The following mitigation measures are recommended as conditions of Project approval and shall apply in the event significant cultural resources are found during implementation of the Project.

1. In the event presently unknown archaeological or historical resources are discovered during development of specific projects, work shall be terminated until such time that a certified archaeological/historical consultant can investigate the findings. In such a case, the investigating archaeologist/ historian shall determine appropriate future actions that must be taken prior to continuation of all affected project(s).

2. All structures and properties involved in rehabilitation/development activities shall be evaluated for historic significance in accordance with the historic resources guidelines set forth in the City Zoning Ordinance (Chapter 6-21).

3. The existing condition of all historic structures that are approved for demolition, removal from existing site and/or modification shall be documented with photographs and written descriptions prior to commencement of the approved action.

Level of Significance After Mitigation

Insignificant

## E.2 SUMMARY OF PROJECT ALTERNATIVES

Alternatives to the proposed Project include; 1) the no project alternative; 2) alternative project areas; 3) limited redevelopment activities; and 4) alternative methods of financing.

1. The no project alternative would require that the redevelopment action initiated by the Redevelopment Agency be terminated. The no project alternative would, for an indeterminable period of time, prevent many of the potential side effects that could be generated from proposed redevelopment projects, such as incremental traffic increases, noise generated, increased air contaminants, public safety liabilities, and increased water consumption and wastewater generations. However, without redevelopment authority and financial mechanisms, the adverse conditions in the proposed Project Area may increase, thereby, further contributing to a continuing decline of the area, as well as negatively affecting physical and economic conditions in surrounding areas.

2. An alternative project area does not take into consideration that the proposed Project Area was selected based upon existing conditions and the need for redevelopment. A reduction in the proposed Project Area's size caused by elimination of various developed or undeveloped assessed property or an extension of proposed Project Area boundaries would diminish the redevelopment program's ability to address conditions of deficiency and disuse within the area.

3. The limited redevelopment activities alternative would require the reduction of Agency activities and/or authority within the proposed Project Area. Such a limitation would

reduce the likelihood that needed improvements and facilities would be provided. Additionally, tax increment funding would be severely restricted. Also, if activities were limited, problems of blight would continue, which would adversely effect and discourage investment in the proposed Project Area.

4. The financing alternative is the fourth alternative. Financing alternatives might include Industrial Development and Mortgage Revenue Bonds, Community Development Block Grant (CDBG) funds, Economic Development Administration (EDA) funds, Assessment Districts and other county, state, and federal assistance and funding programs. Although each of these programs may be used as a supplement to tax increment financing, each has inherent limitations and disadvantages and reliance on any of these sources as a sole financing tool, to a large degree, is not considered feasible. Existing disadvantages associated with these financing alternatives would jeopardize the Plan's long-term implementation and prevent the Redevelopment Agency from being able to affect positive economic and physical changes within the proposed Project Area.

   Therefore, use of this alternative would allow existing conditions of deficiency, which negatively affect the proper utilization of the proposed Project Area, to continue without a substantial means of abatement. In contrast, adoption of the Plan will lead to availability of funding source and tax increment and additionally provide the Agency with the ability to encourage the assembly of parcels into economically viable units.

In the final analysis, none of the alternatives is environmentally or fiscally superior to the proposed Plan.

## E.3 SUMMARY OF ISSUES TO BE RESOLVED BY THE LEAD AGENCY

As the Lead Agency for the Plan, the Lafayette Redevelopment Agency will be required to resolve a number of complex issues that may affect the proposed Project Area, the City of Lafayette and the region. How the Agency resolves the following issues, and others as they are brought forth, will determine the long-term impacts of the Plan upon local and regional resources. The issues that have been identified which the Agency must resolve are as follows:

1. The Agency must determine the applicability/effectiveness of the Project Alternatives as described in detail within section 3.0 of this report.

2. The Agency must find that implementation of the Plan will not cause significant negative impacts to the following areas of concern. As such, mitigation measures will not be required.

   - Land Use
   - Demographics
   - Public Services and Utilities (Wastewater, Solid Waste, Schools, Parks and Recreation, and Public Utilities)

3. The Agency must determine whether or not the recommended mitigation measures included in section 2.0 of this report represent adequate and appropriate mitigation for the adoption of the Project with regard to the following areas of concern:

   - Air Quality
   - Noise
   - Earth Resources
   - Transportation and Circulation

- Biological Resources
- Public Services and Utilities (Water Resources, Police Protection, Fire Protection and Flood Control/Drainage)
- Cultural Resources

4. The Agency must find that this EIR has been prepared in accordance with the legal requirements established within the California Environmental Quality Act, as Amended.

## E.4 AREAS OF CONTROVERSY KNOWN TO THE LEAD AGENCY

No controversial environmental issues relative to the Plan are known to the Lead Agency at this time.

# 1.0

# PROJECT DESCRIPTION

# 1.0 PROJECT DESCRIPTION

## 1.1 Introduction, Authority and Approach

The Lafayette Redevelopment Agency (the "Agency") is proposing the establishment of the Lafayette Redevelopment Project (the "Project" or "Plan"). The territory proposed to be included (the "proposed Project Area") within the Project consists of approximately 294 acres located along the Mt. Diablo Boulevard Corridor (the "Corridor Area") in the City of Lafayette (the "City").

This Draft Program Environmental Impact Report (EIR) prepared for the Plan has been prepared in accordance with the California Environmental Quality Act of 1970 (CEQA), as amended, and the guidelines for the implementation of the California Environmental Quality Act (CEQA Guidelines).

The determination that the Lafayette Redevelopment Agency is the Lead Agency for the Project has been made in accordance with Section 21165 of the Public Resources Code. Section 21067 of the Public Resources Code defines "Lead Agency" as the public agency which has the principal responsibility for carrying out or approving a project which may have significant effects upon the environment.

According to the State EIR Guidelines, (Section 15180), "all public and private activities or undertakings pursuant to or in furtherance of a redevelopment plan constitute a single project, which shall be deemed approved at the time of adoption of the Redevelopment Plan by the legislative body".

CEQA Guidelines, Section 15180, state that "an EIR on a redevelopment plan shall be treated as a program EIR with no subsequent EIRs required for individual components of the redevelopment plan unless a subsequent EIR or a supplement to an EIR would be required by Section 15162 or 15163."

The State CEQA Guidelines, Section 15168, describe a "program" EIR as follows:

A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

(1) Geographically,

(2) As logical parts in the chain of contemplated actions,

(3) In connection with the issuance of rules, regulations, plans,or other general criteria to govern the conduct of a continuing program, or

(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

Use of a program EIR can provide the following advantages. The program EIR can:

(1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,

(2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,

(3) Avoid duplicate reconsideration of basic policy considerations,

(4) Allow the Lead Agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and

(5) Allow reduction in paperwork.

Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.

(1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.

(2) If the agency finds that, pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.

(3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.

(4) Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

(5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

A program EIR can be used to simplify the task of preparing environmental documents for later parts of the program. The program EIR can:

(1) Provide the basis in an Initial Study for determining whether the later activity may have any significant effects.

(2) Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole.

(3) Focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.

When a law other than CEQA requires public notice or when the agency later proposes to carry out or approve an activity within the program and to rely on the program EIR for CEQA compliance, the notice of the activity shall include a statement that:

(1) This activity is within the scope of the program approved earlier, and

(2) The program EIR adequately describes the activity for the purposes of CEQA.

The following is the discussion on the uses of the program EIR by the California State Office of Planning and Research:

The program EIR can be used effectively with a decision to carry out a new governmental program or to adopt a new body of regulations in a regulatory program. The program EIR enables the agency to examine the overall effects of the proposed course of action and to take steps to avoid unnecessary adverse environmental effects.

Use of the program EIR also enables the Lead Agency to characterize the overall program as the project being approved at that time. Following this approach when individual activities within the program are proposed, the agency would be required to examine the individual activities in the program EIR. If the activities would have no effects beyond those analyzed in the program EIR, the agency could assert that the activities are merely part of the program which had been approved earlier, and no further CEQA compliance would be required. This approach offers many possibilities for agencies to reduce their costs of CEQA compliance and still achieve high levels of environmental protection.

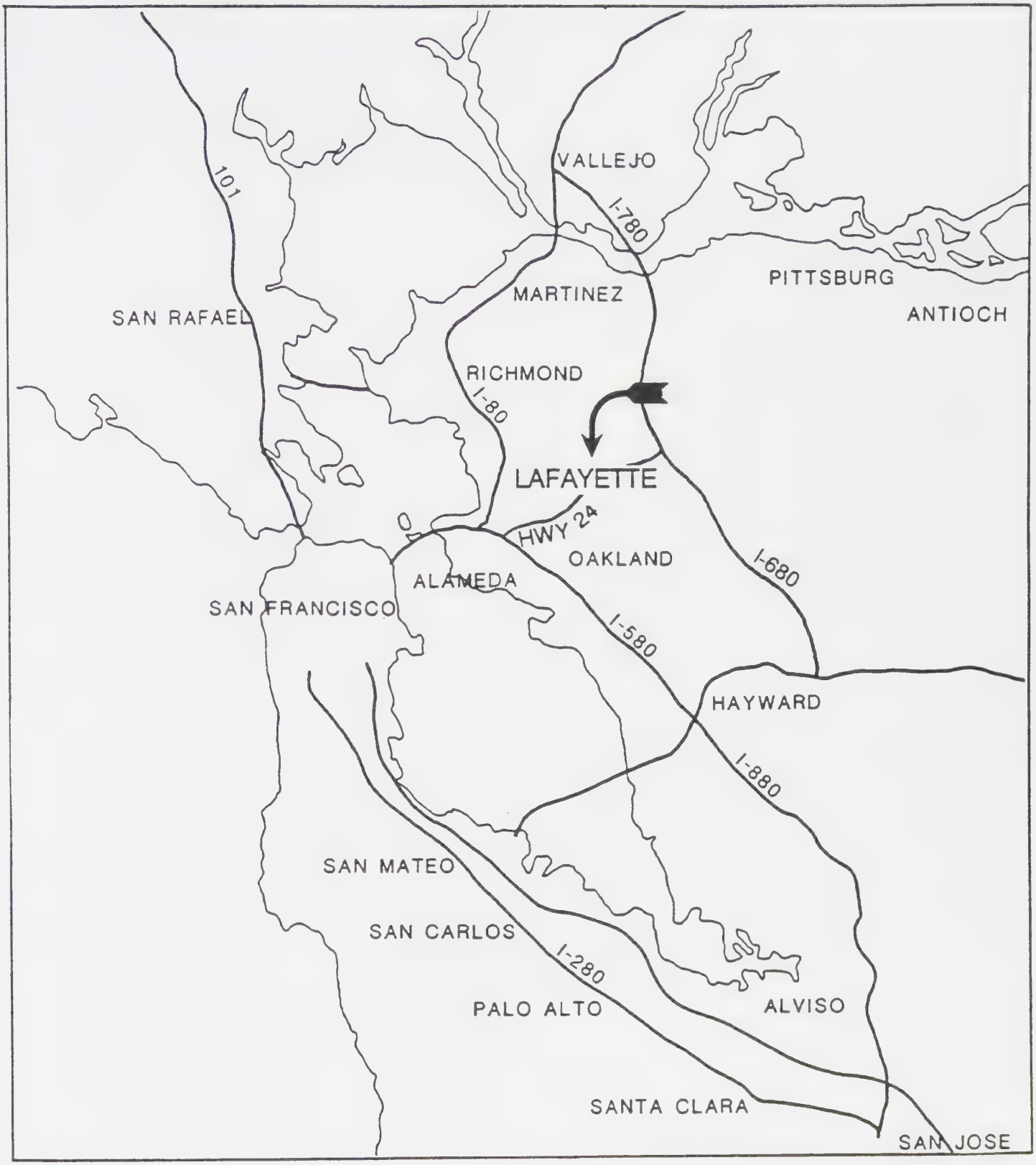
## 1.2 Location and Boundaries

The proposed Project Area, in its regional context, is shown in Figure 1. The City of Lafayette encompasses approximately 15 square miles in the western portion of Contra Costa County. The City is bordered by the Town of Moraga to the south, the Briones Regional Park to the north, the City of Orinda to the west, and the City of Walnut Creek and Pleasant Hill to the east. The City of Lafayette is located approximately 17 miles east of San Francisco, 6 miles south of Concord, and 45 miles north of San Jose. Primary access to the City is provided by State Route 24 and the Bay Area Rapid Transit (BART) system. Secondary access is provided by such roadways as Pleasant Hill Road, Reliez Station Road, Moraga Road, St. Mary's Road, Olympic Boulevard and Happy Valley Road. The specific location and boundaries of the approximately 294 acre proposed Project Area are presented in Figure 2.

## 1.3 Environmental Setting

The climate of Lafayette is typical of sheltered inland locations in California. Daytime temperatures in summer average near 90 degrees Fahrenheit. Summer diurnal range is high, with temperatures dropping to the low 50s by morning. Daytime temperatures in winter vary little from the more coastward locations, with maxima in the mid-50s. Winter minima, however, are some ten degrees lower on the average than stations on the coast, with morning temperatures in the low to middle 30s. Sunshine is plentiful in summer, with clear skies most of the time. Summer stratus does sometimes penetrate into Lafayette, particularly at night.

Winds are not measured in Lafayette. The closest wind measurement locations are in Oakland to the west and in Concord to the northeast and east. Under typical weather conditions, winds are from the west at Lafayette, but wind strength is less than at more exposed locations such as Oakland. Wind is highest on average during summer and spring afternoons. During fall and winter, light winds are more common, particularly in the night and morning hours. Calm conditions are relatively frequent. The frequency of calm winds at Concord exceeds 32 percent of the time.




# Lafayette Redevelopment Project

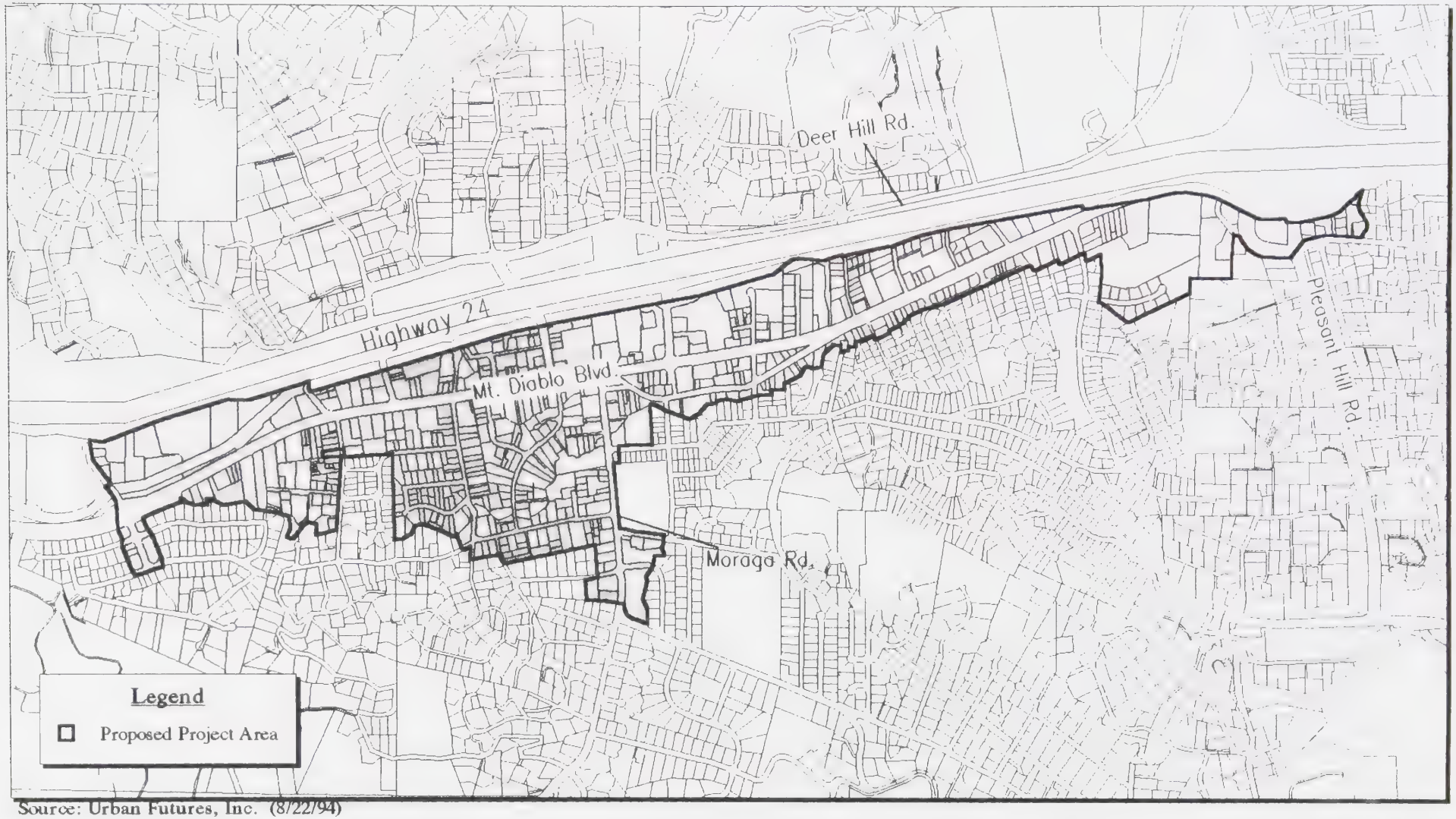
## Regional Location Map

Prepared By:
Urban Futures, Inc.
3111 N. Tustin Ave., Ste. 230
Orange, CA 92665

N

Not to Scale

Figure 1




Source: Urban Futures, Inc. (8/22/94)

# Lafayette Redevelopment Project

## Proposed Project Area Map

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3111 N. Tustin Ave., Ste. 230
Orange, CA 92665

N

Not to Scale

FIGURE 2

The potential for air pollution in the Lafayette area is relatively high compared to other portions of the Bay Area. Surrounding elevated terrain in conjunction with temperature inversions frequently restrict vertical and horizontal dilution of pollutants during periods of calm winds. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidant, and the East Bay valleys are a frequent scene of photochemical pollution even in the absence of local sources, due to sea breeze transport of contaminants from westward urban areas.

Lafayette is located in the Coast Range of California. In Contra Costa County, the Coast Range is dominated by several northwest trending fault systems which divide the County into large blocks of rock. Within each block, the rock sequence consists of a basement complex of rock of the Franciscan Complex (pre-Tertiary rocks of sedimentary, igneous, and metamorphic origins). In the Lafayette areas, this complex is overlain by various rock units of Tertiary age (e.g., Cierbo sandstone, the Orinda Formation, and the Neroly Formation); these units are primarily hard, marine-generated sandstones and shales overlain, in turn, by softer, non-marine (Pliocene) units. In addition to these depositional formations, there are occasional intrusions of younger (Pleistocene) volcanic basalt.

Lafayette consists of a mosaic of ridges and valleys. Past development has focused on the lowlands or more gentle slopes of the various ridges within the City while steeper slopes and higher portions of ridges have been often lightly developed or remain in an undeveloped state. Elevations range from 1,433 feet in the Briones Hills at the north end of the City to elevations of about 200 feet along streams in the eastern portion of the City. As noted above, there are a number of distinct ridges in the City, most of which generally follow the basic northwest trending nature of the area's geology (though there are spur or independent ridges which are not oriented in this direction).

Suburban development, the last phase of landscape transformation, has been the most rapid and dramatic force in altering the Lafayette environment. In the past 50 years, there has been unprecedented tree planting. With the cessation of cattle grazing and the suppression of fires, the native trees and the chaparral community have expanded. Today, the City is a mosaic of plant communities with native woodland and grasslands interspersed with suburban development and its associated landscaping. The basic natural vegetation communities include Grassland, Oak Woodland, Chaparral, Riparian Woodland, Transitional Landscape or Edge Habitat, and Developed Landscape.

Numerous prehistoric archaeological sites have been identified along Lafayette's creeks, where foothills meet valleys and at vegetation ecotones. There is the possibility of unrecorded prehistoric cultural resources in the City of Lafayette.

Historically, there has been activity in the area since the granting of Rancho Acalanes and establishment of the City of Lafayette. Therefore, there is the possibility, in many areas, of historical cultural resources associated with the settlement and subsequent occupation of the Lafayette area.

The City Zoning Ordinance provides for the designation of historical landmarks within the City. Historic buildings can be nominated for such designation by the owner of the property or the Lafayette Historical Society. Nominations are reviewed, and those structures that meet the criteria may be designated historical landmarks by the City Council. Once a structure is so designated, anyone owning, renting, or occupying the structure must procure a certificate of appropriateness from the City Council before making any environmental change to the property.

## 1.4 Project Objectives and Characteristics

Negative conditions existing within the proposed Project Area have generally contributed to 1) the physical deterioration of certain structures and infrastructure; 2) a loss of the highest and best use of some properties included within the proposed Project Area 3) a decline in the economic productivity of the proposed Project Area and; 4) impaired investments in the proposed Project Area. The described conditions will, for the remainder of this report, be generally referred to as "conditions of deficiency" or "blight."

The primary objective of the Plan is to improve the quality of life by lessening or removing the existing negative conditions over the long term. As part of its primary objective, the Agency seeks to revitalize and upgrade the properties within the proposed Project Area in accordance with the City's General Plan and all other applicable City, County, State and Federal laws, restrictions and guidelines, as well as to utilize existing underutilized and nonproductive vacant parcels, in order to increase sales, property and business tax revenues, provide low to moderate income housing opportunities, improve roadways, parking areas, provide a high level of City services, create additional jobs for area residents, increase social and economic stability, and promote aesthetic and environmental actions and improvements.

The purposes of the California Community Redevelopment Law could be achieved within the proposed Project Area through the provision of housing programs; the installation, construction, reconstruction, redesign, or reuse of streets, utilities, curbs, gutters, sidewalks and other associated public improvements as permitted by the Lafayette General Plan and Zoning Ordinances; the assemblage of land into parcels suitable for modern integrated development with improved pedestrian and vehicular circulation; and the development and redevelopment of the proposed Project Area in a manner consistent with the policies and goals of the General Plan. It should be noted that the City is currently updating the General Plan in which a draft of the updated version will be submitted to the City Counsil in the Spring of 1995. The proposed Redevelopment Plan will be subjected to the current General Plan until the updated General Plan is adopted and subsequently amended from time to time. However, most of the information contained in this EIR is from the updated General Plan Data Base because such information is more current, accurate and reflective of the conditions in the City of Lafayette as opposed to the current General Plan data base (adopted 1974).

Incorporation by Reference

This Program EIR incorporates, by reference, the following documents:

- All elements of the Lafayette General Plan and related EIR prepared for the City of Lafayette including the updated General Plan Data Base. The city's General Plan and related EIR provide goals, objectives and policies which govern the City's ultimate growth potential and the related environmental analysis.

- The EIR prepared for the Lafayette Town Center located within the proposed Project Area along Mt. Diablo Blvd. This EIR addresses the construction of office and commercial uses on a 3.75 acre parcel.

- The Lamorinda Traffic Study prepared for the communities of Lafayette, Moraga, and Olinda and the Contra Costa Transportation Authority. The purpose of this traffic study was to address transportation problems by identifying actions and measures to mitigate the impacts of traffic congestion between Highway 24 and the Town of Moraga.

- The Transportation Background Report prepared for the Lafayette General Plan by Robert L. Harrison. This report is intended to summarize the existing conditions found on the transportation system in Lafayette and to relate these conditions to the major issues which face the city today.

Incorporation by reference allows for the reduction of repetitious paperwork and information thereby expediting the CEQA process. Copies of the aforementioned documents are available for public review at the Office of the Lafayette City Clerk located at 3675 Mt. Diablo Blvd., Suite 210, Lafayette, CA 94549.

## 1.5 Purpose and Intended Use of this Document

The purpose of this Program EIR is to provide an accurate and concise information document that will inform local decision-makers and the general public of the environmental effects of the proposed Project.

The report discusses the existing environmental conditions within the City of Lafayette and the proposed Project Area, the potential significant impacts of the Plan on the physical environment, evaluates alternatives to the Plan and identifies measures for reducing or avoiding any identified significant adverse impacts. In addition, comments solicited from local agencies and organizations during the preparation of the report are included.

This Program EIR is intended for use by the general public, officials of the City of Lafayette and other interested agencies wishing to evaluate the environmental effects of the proposed Plan. It is designed to be a full disclosure document that will accompany the Plan through its adoption process.

The following agencies will be responsible for granting approvals for the Plan:

1) Lafayette Planning Commission: evaluates Plan conformity with City's General Plan and adopts resolution;

2) Lafayette Redevelopment Agency: approves and recommends the Plan's adoption;

3) Lafayette City Council: approves and adopts the Plan by City ordinance.

The Lafayette Redevelopment Agency and the Lafayette City Council may use the Final EIR prepared for the proposed Plan to tier EIRs which they prepare for future separate, but related Projects should additional EIRs be required pursuant to Sections 15162 and 15163 of the Guidelines.

The following Responsible Agencies have received the Notice of Preparation (CEQA Section 15082) and the subject EIR. Each of these Agencies, at their discretion, can participate in the CEQA review process mandated as part of the proposed Plan's adoption process.

- Acalanes Union High School District
- Alamo/Lafayette Cemetery
- Association of Bay Area Governments
- Bay Area Air Quality Management District
- Bay Area Rapid Transit
- California State Department of Fish & Game
- California State Department of Housing & Community Development
- California State Office of Planning & Research

- Canyon Elementary School District
- Central Contra Costa Sanitary District
- City of Concord
- City of Lafayette
- City of Orinda
- City of Pleasant Hill
- City of Walnut Creek
- Contra Costa County Building Department
- Contra Costa County Community College District
- Contra Costa County Community Development Department
- Contra Costa County Fire Protection District
- Contra Costa County Flood Control District
- Contra Costa County Library
- Contra Costa County Mosquito Abatement
- Contra Costa County Superintendent of Schools
- East Bay Municipal Utilities District
- East Bay Regional Parks District
- Lafayette Elementary School District
- Moraga School District
- Orinda Union School District
- Pacific Gas & Electric
- Pleasant Hill Parks & Recreation
- Town of Moraga
- U.S. Army Corps of Engineers
- Walnut Creek School District

## 1.6 Relationship to General Plan Build-Out

It is anticipated that, for the most part, the environmental impacts resulting from implementation of the proposed Plan will be beneficial in that conditions of blight in the proposed Project Area will be eliminated.

Relative to the proposed Project Area, implementation of the proposed Plan will occur over a 30-year period; implementation will be generally guided by market demand, property and business owner participation, and availability of funding sources. No specific development projects are known to the Agency at this time, hence, there is no way for the Agency to forecast or predict with great detail what degree of impact the proposed Project will have upon the long-term growth of the proposed Project Area. The Agency can only project, based upon the success of most other redevelopment projects within the State of California, that the Plan will be the catalyst for positive, long-term economic and physical growth within the proposed Project Area.

It is difficult therefore, to determine at what degree of specificity to calculate potential growth and possible related negative impacts affected by the Project's implementation. The Agency has determined that, because the Plan is a tool that can be used by the City of Lafayette to affect implementation of the City's General Plan, the appropriate measurement of Project impact is best evaluated in terms of General Plan build-out of the proposed Project Area. As such, the Agency will base all projections within the EIR upon a General Plan build-out scenario. The exact degree of the Plan's influence upon ultimate General Plan build-out within the proposed Project Area is indeterminable, but it does allow the Agency to quantify, within parameters established by existing General Plan Policy guidelines, potential long-term Project related impacts. All growth statistics relative to General Plan build-out used within this EIR to evaluate long-term environmental impact are presented on Table 1. It should be noted that the maximum

amount of development which is allowable under the General Plan is not altered by the Redevelopment Plan.

At this time, only the nature of the redevelopment activities or projects are known. These include the rehabilitation and improvement of existing structures and infrastructure, the construction of needed public facilities such as community buildings, affordable housing, infrastructure, circulation improvements and grants, and/or loans to encourage economic development.

**TABLE 1**
**STATISTICAL ABSTRACT**
Based Upon General Plan Build-Out*
Lafayette Redevelopment Project

| | Existing Conditions* | Potential Long-Term Growth Statistics* | Resultant[6] Build-Out Statistics* | Percent Increase Over Existing |
|---|---|---|---|---|
| Housing (Dwelling Units) | 1,845[1] | 157[6] | 2,002 | 8 |
| Population (People) | 3,432[2] | 132[2] | 3,564 | 4 |
| Commercial/Office Floor Area (Square Feet) | 1,593,138[3] | 639,070[5] | 2,232,208 | 40 |
| Employment (Jobs) | 6,372[4] | 2,556[4] | 8,928 | 40 |
| Water Consumption (Gallons Per Day) | 621,192[7] | 23,892[7] | 645,084 | 4 |
| Waste Water Generation (Gallons Per Day) + | 343,200[8] | 13,200[8] | 356,400 | 4 |
| Solid Waste Generation (Tons Per Year) + | 3,539[9] | 136[9] | 3,675 | 4 |
| Traffic Generation (Trips Per Day) + | 60,290[10] | 18,386[10] | 78,676 | 30 |

* Within the proposed Project Area
Source: Urban Futures, Inc., 1994

1 Taken from Consultant Field Surveys
2 Calculated by multiplying single family/multi-family residential dwelling units x 2.76/1.76 (average household size, U.S. Census, 1990).
3 Estimated existing commercial/office floor area within the proposed Project Area based on the Lafayette General Plan.
4 Based upon an Industry Standard of one (1) job per 250 net square feet of commercial floor area.
5 Based upon the change of existing land uses in conformance with the Lafayette General Plan and Zoning Code.
6 Existing conditions added or subtracted from the potential long-term proposed Project Area growth statistics.
7 Based upon an estimate of 181 gallons per day per capita (persons x 181 gallons = GPD).
8 Based upon an estimate of 100 gallons per day per person (persons x 100 = GPD).
9 Based upon an estimate of 5.65 lbs./person/day (5.65 lbs. x population x 365 days ÷ 2,000 lbs = TPY).
10 Based upon Institute of Traffic Engineer trip generation factors for residential, commercial and office.

\+ All generation factors for solid waste, waste water and water consumption for the proposed Project Area were provided by the database prepared for the Lafayette General Plan.
GPD = Gallons Per Day.
TPY = Tons Per Year.

# 2.0

# ENVIRONMENTAL IMPACT ANALYSIS

## 2.0 ENVIRONMENTAL IMPACT ANALYSIS
(Environmental Setting, Impacts and Mitigation Measures)

### 2.1 LAND USE

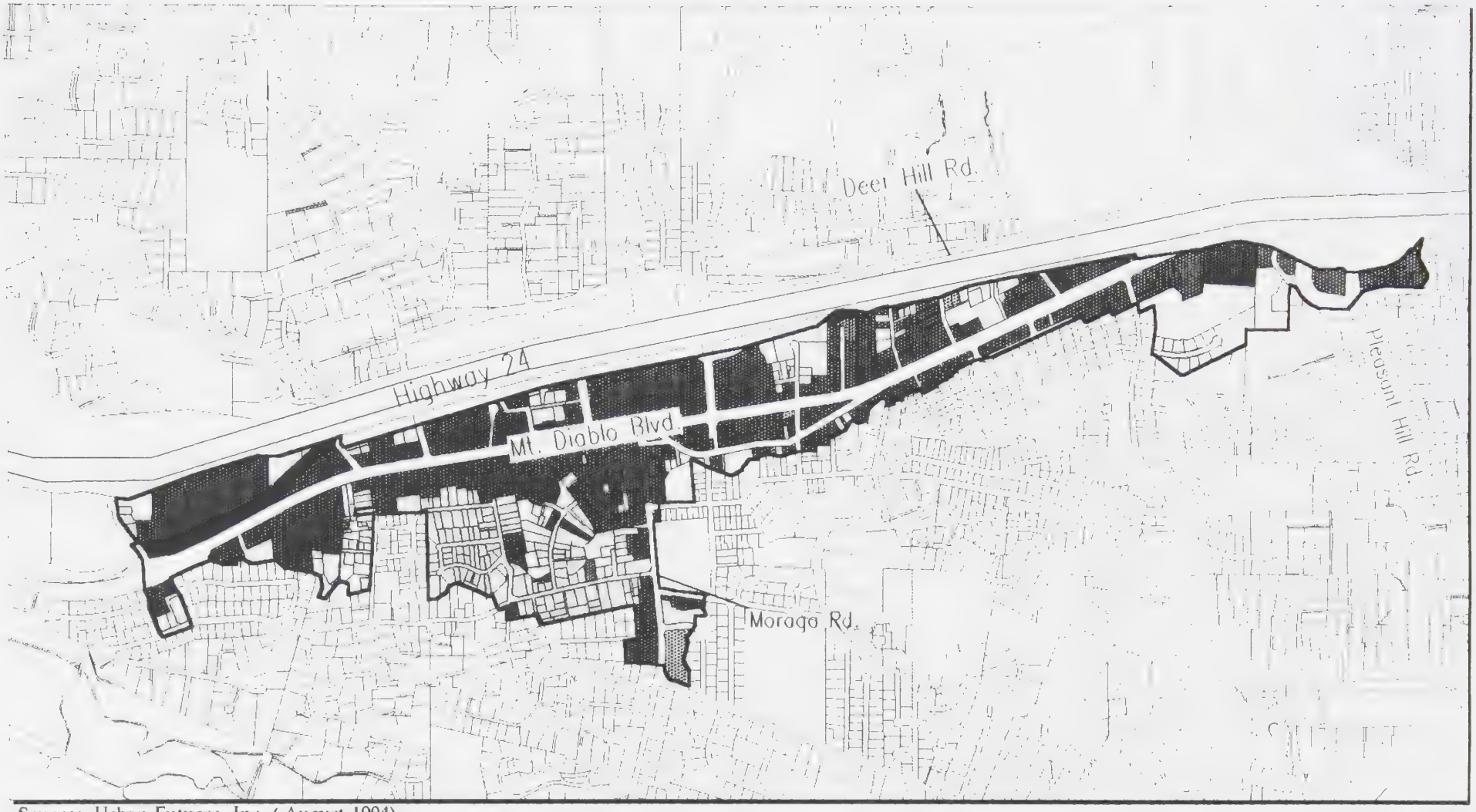
A. Existing Conditions

The proposed Project Area consists of one contiguous area located along Mt. Diablo Boulevard in the City of Lafayette. The overall location and boundaries of the approximately 294-acre proposed Project Area have been previously presented in Figure 2. The breakdown of existing land uses within the proposed Project Area by approximate acreage is shown in Table 2. The proposed Project Area is presently composed of a mixture of residential, commercial, public and quasi-public land uses interspersed with parcels that are parkland, previously urbanized, unimproved and public rights-of-way. Existing land use and General Plan/Zoning land use designations are shown in Figures 3 and 4. The proposed Project will be in conformance with the City's Zoning Code and General Plan Land Use Element as they presently exist and as they may be amended from time to time.

**TABLE 2**
**EXISTING LAND USE ACREAGE**

| Land Use | Acres | Percent of Project Area |
|---|---|---|
| Residential | 93.86 | 31.9 |
| Commercial | 125.85 | 42.8 |
| Public | 5.72 | 1.9 |
| Quasi-Public | 8.14 | 2.8 |
| Parkland | 1.80 | 0.6 |
| Previously Urbanized | 1.63 | 0.6 |
| Unimproved | 4.18 | 1.4 |
| Rights-of-Way (Streets and Flood Control) | 52.82 | 18.0 |
| TOTAL | 294.0 | 100.0 |

Source: Urban Futures, Inc., 1994




Source: Urban Futures, Inc. ( August 1994)

Legend

- Residential
- Commercial
- Light Industrial
- Public
- Park/Creek
- Quasi Public
- Previously Urbanized
- Unimproved

# Lafayette Redevelopment Project

## Existing Land Use Map

Prepared By:
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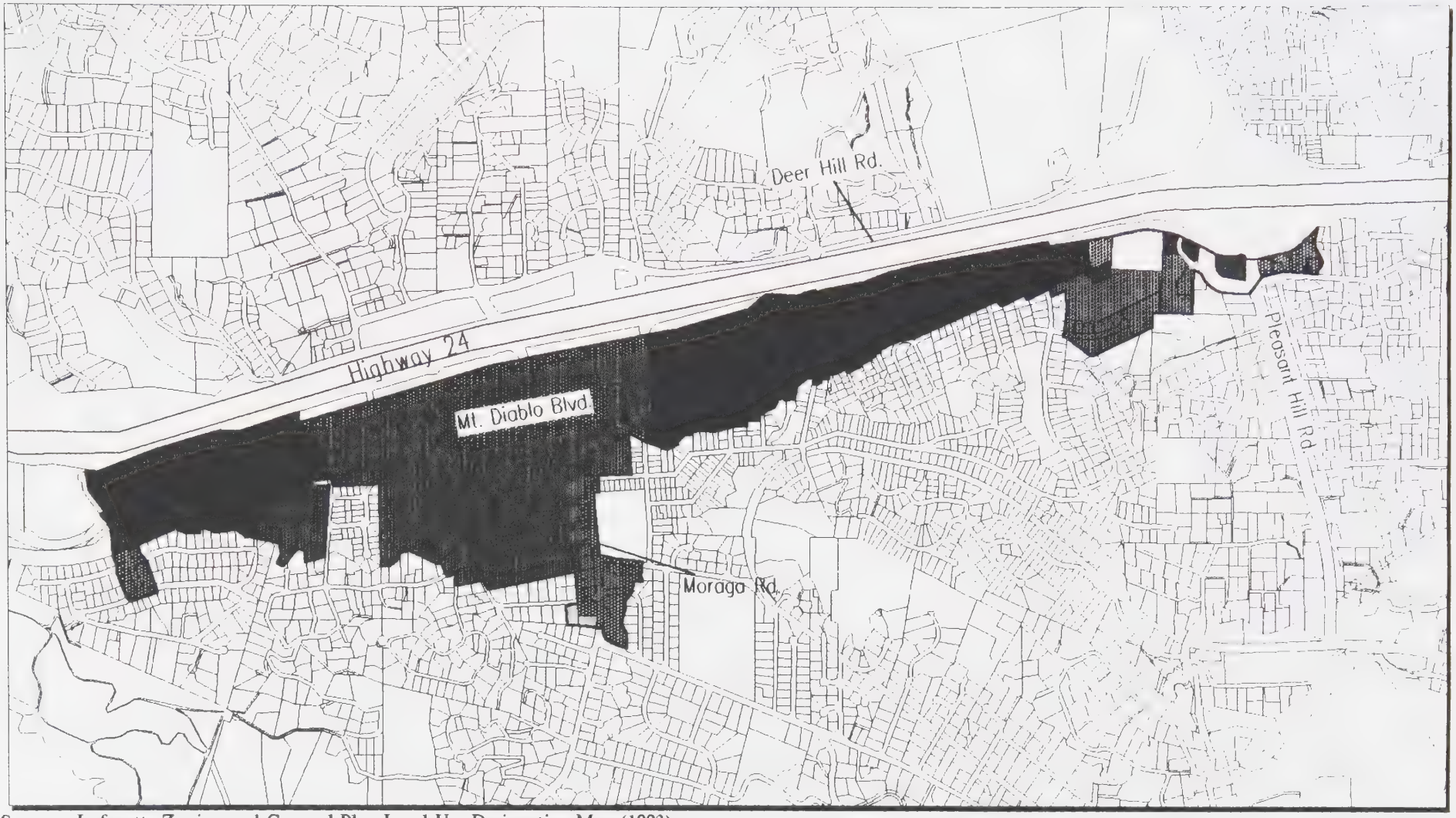
3111 N. Tustin Ave., Ste. 230
Orange, CA 92665

N

Not to Scale

Figure 3




Source: Lafayette Zoning and General Plan Land Use Designation Map (1993)
(Revised 8/94)

Legend

- Single Family Residential
- Multi-Family Residential
- Commercial Special Use
- Office
- Retail/Special Retail
- Planned Development

# Lafayette Redevelopment Project

## General Plan and Zoning Land Use Map

Prepared By:
Urban Futures, Inc.
3111 N. Tustin Ave., Ste. 230
Orange, CA 92665

N

Not to Scale

Figure 4

*Threshold of Significance*

The following significance thresholds have been established by the Association of Environmental Professionals (AEP)[11] as a general guideline for land use impacts. A project will have significant land use impacts if:

- Inconsistency/conflict with the environmental goals, objectives, or guidelines of a community or general plan occurs.

- Inconsistency/conflict with an adopted land use designation of intensity and indirect or secondary environmental impacts occur (for example, development of a designated school or park site with a more intensive land use could result in traffic impacts).

- Substantial or extreme use incompatibility, for example, a rock crusher in a residential area.

- Development or conversion of general plan or community plan designated open space to a more intensive land use occurs.

- Inconsistency/conflict with adopted environmental plans for an area. Development of a non-designated use within the boundaries of park master plan.

B. Impacts

The proposed Project will comply with, and conform to, the goals, objectives, and policies of the Lafayette General Plan, Zoning Code and all other applicable City, State, County and Federal land use laws, restrictions and guidelines. Project Area improvements and development, made possible by the Project's implementation, are expected to increase the proposed Project Area's level of land utilization to the long range levels designated in the City's General Plan and Zoning Code.

The adoption of the proposed Plan will indirectly facilitate alterations to existing land uses within the proposed Project Area; these alterations will generally be made possible through Agency administrative and financial assistance. Within the proposed Project Area some areas could see significant change over the life of the 30-year Plan due to Project implementation in conformance with the City's General Plan and Zoning Code. These areas include the following:

- The area directly south of Mt. Diablo Blvd. could increase in residential development over the 30-year life of the Plan. Although the residential segment of the Corridor Area is close to build-out, most of the existing residential areas could increase to a higher density as described in the Lafayette Zoning Code. Thus, the recycling of existing residential land uses to higher densities will add 157 multi-family dwelling units within the proposed Project Area. However, if such changes do occur, the developments will take place incrementally over the life of the Plan.

---

[11] Thresholds of Significance Workbook prepared by the Association of Environmental Professionals (June 1992).

- Within the Corridor Area, additional commercial and office development could occur along Mt. Diablo Blvd. in areas that are either underutilized or previously urbanized. At build-out, such developments could generate an additional 639,070 square feet of commercial and office floor area over the life of the Plan.

For the most part, other areas in the proposed Project Area could see increases in development but on a very limited scale due to the existing build-out condition. For example, other commercial areas along Mt. Diablo Blvd. will see very minor changes in the type of land use that currently exists due to its existing conformance with the Lafayette General Plan and Zoning Code. The only changes likely to occur in the near future will be the rehabilitation of existing commercial structures which in some cases may include increasing the floor area. Rehabilitation of existing structures and reconstruction of infrastructure will improve the overall character and circulation efficiency of the area. The overall breakdown of permitted General Plan/Zoning land use designations within the proposed Project Area is shown in Table 3.

**TABLE 3**
**GENERAL PLAN/ZONING LAND USE ACREAGE**

| Land Use | Acres | % of Total |
|---|---|---|
| Single Family Residential | 10.23 | 3.5 |
| Multi-Family Residential | 60.54 | 20.6 |
| Commercial Special Use | 91.48 | 31.1 |
| Retail | 30.03 | 10.2 |
| Special Retail | 28.39 | 9.6 |
| Office | 18.71 | 6.4 |
| Planned Development | 1.80 | 0.6 |
| Rights-of-Way | 52.82 | 18.0 |
| TOTAL | 294.0 | 100.0 |

Source: Urban Futures, Inc., 1994
City of Lafayette General Plan and Zoning Code

The Project, through implementation of related projects and programs administered and funded (or partially funded) by the Agency, may be the catalyst for future public/private development and investment upon currently underutilized, residential, commercial, industrial and undeveloped properties in accordance with the City's General Plan Land Use Element. Moreover, historical trends have shown that other redevelopment agencies directed residential, commercial and industrial improvement/rehabilitation projects which stimulated privately funded improvement of neglected and marginally maintained properties in proximity to the Redevelopment Project Areas.

Implementation of the proposed Project will provide the City with a financing mechanism to supplement funding of needed public facilities. In addition, the use of

tax increment financing under the Project will make possible a variety of residential and commercial improvement projects, as well as traffic/circulation, and infrastructure improvement/rehabilitation projects which will work towards the elimination of deficient conditions within the proposed Project Area, as described within section 1.4 of this document, and as detailed within Section III of the previously referenced Preliminary Report. A general description of the proposed public improvement projects and programs is included as Appendix A of this document.

Utilization of this Project as an economic development incentive will eventuate positive residential and commercial use of land designated as such. Effects of projects and programs dedicated toward providing housing for low and moderate income families will serve to increase positive utilization of residential land as designated in the City's General Plan. Implementation of this Project will also facilitate improvements to the City's community facilities.

Infrastructure and rights-of-way improvement projects will result in improved circulation and traffic conditions within the proposed Project Area. Existing and future land uses within the proposed Project Area will also be complemented by projects that will improve deficient and inadequate gutters, water lines, storm water and drainage control systems, streets, curbs, and sidewalks.

C. Mitigation Measures

No mitigation measures are recommended as conditions of Project approval. Implementation of redevelopment projects, by encouraging orderly development that is consistent with the goals and objectives of the City's General Plan, will serve to alleviate the existing negative economic and physical trends, which presently impact the proposed Project Area's land resources.

## 2.2 DEMOGRAPHICS

The following section contains excerpts from the Housing Element of the Lafayette General Plan as previously incorporated by reference. More detailed analysis on demographics within Lafayette can be found in this document.

A. Existing Conditions

*Population*

The 1990 Census recorded 23,501 residents within the incorporated boundaries of the City of Lafayette. The population of Lafayette in 1970 was approximately 20,484 persons and 20,879 in 1980. This would indicate a 2 percent population increase from 1970 to 1980, and a 13 percent increase from 1980 to 1990. Recent 1993 population estimates prepared by the Department of Finance identified a population of 23,700 persons in the City, indicating a less than one percent population increase since 1990. From 1980 to 1990 Lafayette grew at a slower rate than the neighboring City of Pleasant Hill and the County of Contra Costa as a whole.

The current resident population within the proposed Project Area is estimated to be 3,432 people. This figure was calculated by multiplying the total number of single family and multi-family residential units within the proposed Project Area times the average household size for single family and multi-family. The proposed Project Area contains approximately 15 percent of the current population of the City.

*Housing*

The 1990 Census identified 9,270 housing units in Lafayette. According to the Lafayette Planning Department in 1980 an estimated 8,785 housing units existed within the City. This represents a 5 percent growth in housing units from 1980 to 1990. Since 1990, a net increase of 48 residential units have been constructed to increase the total amount of housing units in Lafayette as of 1992 to 9,318. Within the proposed Project Area there presently exist 1,864 dwelling units. This total represents approximately 20 percent of the amount of dwelling units within the City of Lafayette.

In 1990, single-family detached units represented 82.9 percent of Lafayette's total housing stock. Multi-family dwelling units represented the second largest residential housing type, accounting for 16.7 percent. As of 1992, the percent of housing units by type has remained unchanged. Within the proposed Project Area, 186 dwelling units or 10 percent are single-family detached units and 1,659 dwelling units or 90 percent were multi-family units.

*Employment*

The 1990 Census information indicates the largest segment of the civilian work force of the people residing in the City, 44.2 percent, are employed in occupations related to professionals, executives and managerial positions. The second largest occupational group, at 35.6 percent, were technical, sales, and administration support fields.

The 1990 Census identified the Service Industries such as health, education, and other professional services, as providing the largest percentage of the jobs, 22.9 percent. Finance, insurance and real estate provide 10.6 percent of the jobs, retail industries

10.6 percent, and construction industries included 4.6 percent.

Within the proposed Project Area the estimated employment for commercial land uses is 6,372 people based upon one employee per 250 sq. ft. of floor area. Based on this formula the entire employment within the City amounts to 6,922 which is similar to the Lamorinda Traffic Study projections of 7,038. The proposed Project Area represents 92% of the employment opportunities within the City.

*Thresholds of Significance*

According to the Association of Environmental Professionals (AEP) recommended thresholds of significance, a project would have a significant impact on population, housing, or employment if:

- It would substantially alter the location, distribution, density, or growth rate of the human population planned for the area and result in a demand for housing and public and private services which exceeds supply in the short- or long-term. The displacement of a large number of residents also would be considered a significant effect.

- The project will induce substantial growth or concentration or population either through provision of employment or housing, or both, or if the project's generation of population or employment is inconsistent with the regional growth management plans.

- It caused ... the loss of one or more very low to moderate income housing opportunit[ies] through demolition, conversion or other means...

- It would substantially alter existing housing types or create an unmitigated, substantial demand for additional housing.

- The project will have a substantial adverse effect on existing housing, will create a demand for additional housing exceeding supply, or will be inconsistent with the regional growth management plans.

B. Impacts

*Population*
*Housing*
*Employment*

Assuming General Plan build-out of the proposed Project Area to densities allowable under the City's General Plan Land Use Element for residential land use, available housing in the proposed Project Area could increase to a maximum of 2,002 units. The additional housing units could generate a long-term build-out population of approximately 3,564 people. Assuming General Plan build-out, potential long-term impacts upon the proposed Project Area's existing demographic setting are presented in Table 1 and highlighted below in Table 4. It should be noted that while 157 dwelling units could be developed at build-out, the population could only increase by 137 people as shown in Table 1 because multi-family units have a significantly lower household size than single family units.

The proposed Plan's implementation will facilitate the long-term economic and physical growth of the proposed Project Area. The economic and physical impacts from the proposed Plan's long-term implementation should be considered positive in nature because an improved economic and physical setting will strengthen the existing social, economic and physical fabric within the proposed Project Area by providing new jobs, new housing opportunities, new community facilities and improved physical infrastructure. Even if complete build-out is not achieved, it is anticipated that partial build-out will help reduce existing deficiencies currently affecting the proposed Project Area and that were previously documented in the Preliminary Report incorporated herein by reference.

As shown in Table 4, implementation of the proposed Plan will generate a positive impact upon existing housing conditions within the proposed Project Area and the City as a whole. The provision for at least 20 percent of the derived tax increment to be used toward meeting low and moderate income housing needs will provide a net benefit to the housing market by increasing available housing inventory within both the proposed Project Area and other areas of the City.

**TABLE 4**
**PROPOSED PROJECT AREA**
**DEMOGRAPHIC STATISTICS**

| Demographic Category | Potential Long-Term Growth Statistics | Percent of Impact Upon Existing City-wide Demographic Setting |
|---|---|---|
| Housing Units | 157 | 2% increase |
| Population | 132 | <1% increase |
| Employment Commercial/Office | 2,556 | 37% increase |

The proposed Plan will serve to alleviate conditions of social and economic deficiencies, as described within the Preliminary Report and Section 1.4 et al of this document, by providing additional jobs and an increased sales and property tax base. Additionally, redevelopment of the proposed Project Area will be the catalyst for necessary revitalization and economic development of land within the proposed Project Area and its adjacent environs. As a result, growth within the proposed Project Area could ultimately occur as shown in Tables 1 and 4. The proposed Project will not significantly alter housing types or create an unmitigated, substantial demand for additional housing. Furthermore, growth would be consistent with the City's General Plan, Zoning Ordinance and all other applicable City, County, State and Federal laws, regulations and guidelines and regional growth management plans.

C. Mitigation Measures

No mitigation measures are recommended as conditions of Project approval. The proposed Plan proposes housing, community development and public facilities programs and economic development projects which are consistent with, and conform to, the City's General Plan. The proposed projects generally described in Appendix A are measures to alleviate existing deficiencies, as described in Section 1.4 of this

document and within the Preliminary Report, and are intended to facilitate future economic and physical development within the proposed Project Area and the City as a whole. The location of land uses and densities shall reflect those in the current General Plan, and as the General Plan is amended from time to time by due process.

## 2.3 NOISE

The following section contains excerpts from the Noise Section of the Lafayette General Plan Data Base as previously incorporated by reference. More specific information on noise in Lafayette can be found in this document.

A. Existing Conditions

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 1 dB corresponding roughly to the threshold of hearing.

Most of the sounds which we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting that reflects the fact that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called "A" weighting, and the decibel level measured using the A-filter is called the A-weighted sound level (dBA). In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve.

Although the A-weighted noise level may adequately indicate the level for environmental noise at any instance in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distance sources that create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, $L_{01}$, $L_{10}$, $L_{50}$, and $L_{90}$, are commonly used. They are the A-weighted noise levels equaled or exceeded during 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period. A single number descriptor called the $L_{eq}$ is also widely used. The $L_{eq}$ is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. however, most household noise also decreases at night and exterior noise becomes more noticeable.

Further, most people sleep at night and are sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, $L_{dn}$ (day/night average sound level), was developed. The $L_{dn}$ divides the 24-hour day into the daytime of 7:00 a.m. to 10:00 p.m. and the nighttime of 10:00 p.m. to 7:00 a.m. The nighttime noise level is weighted 10 dB higher than the daytime noise level. The Community Noise Equivalent Level (CNEL) is another 24-hour average which includes both an evening and nighttime weighting.

The effects of noise on people can be listed in three general categories:

1. Subjective effects of annoyance, nuisance, dissatisfaction

2. Interference with activities such as speech, sleep, learning

3. Physiological effects such as startling, hearing loss

The levels associated with environmental noise, in almost every case, produce effects only in the first two categories. Workers in industrial plants can experience noise in the last category. Unfortunately, there is as yet no completely satisfactory way to measure the subjective effects of noise, or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance, and habituation to noise over differing individual past experiences with noise.

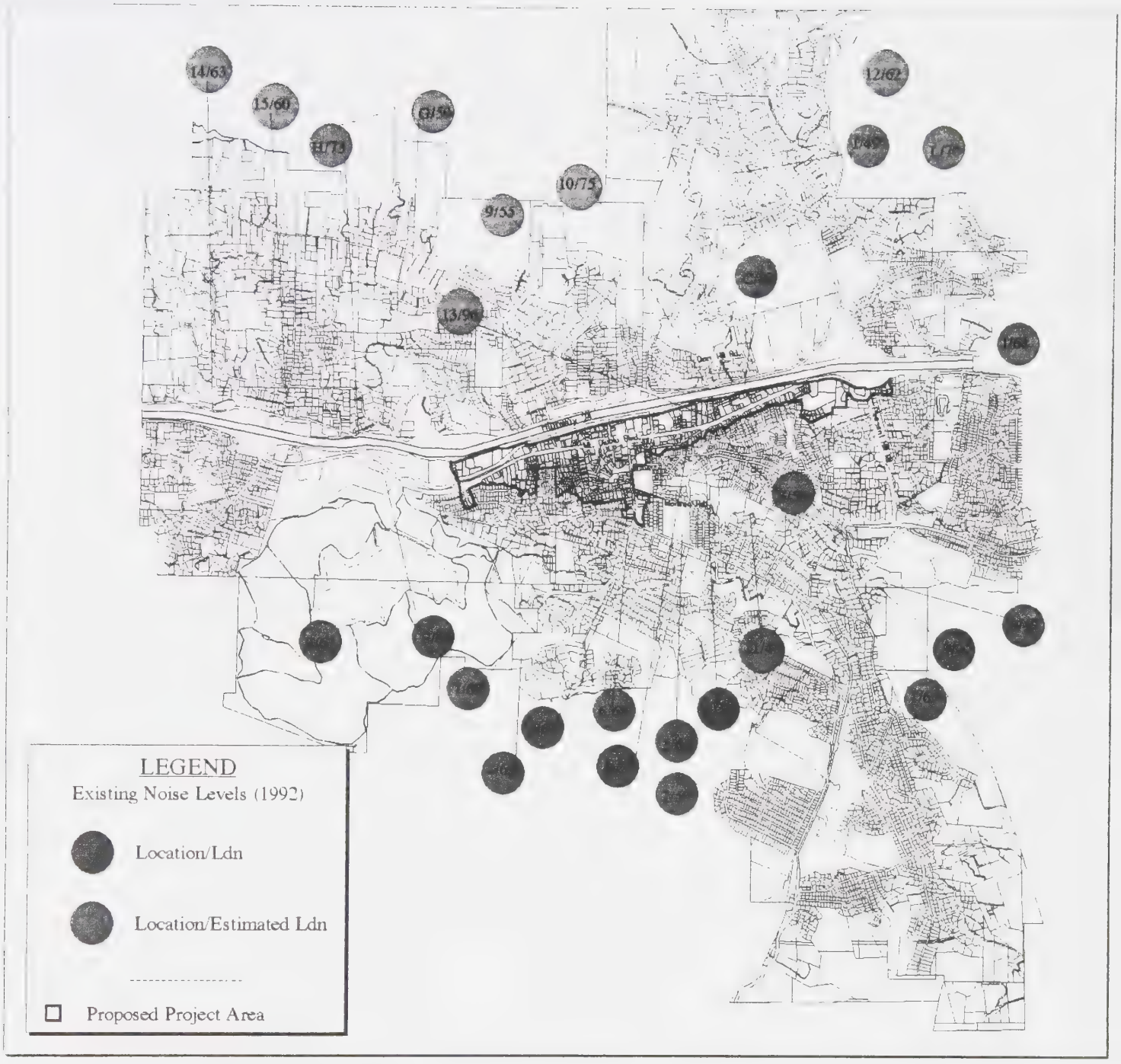
With regard to increases in A-weighted noise level, knowledge of the following relationships is helpful:

1. Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived.

2. Outside of the laboratory, a 3 dB is considered a just-perceivable difference.

The major source of noise in Lafayette is vehicular traffic, including automobiles, BART trucks, buses and motorcycles. The level of vehicular noise generally varies with the volume of traffic, the number of trucks or buses, the speed of traffic, and the distance from the roadway. Noise generated by vehicular traffic in the City is greatest along State Route 24 which is the dominant noise source in Lafayette. Local roadways including Moraga Road, First Street, Pleasant Hill Road, and Mt. Diablo Boulevard are also significant source of traffic noise.

Noise levels were measured as part of the Lafayette General Plan Database at selected points throughout Lafayette in order to quantify the existing noise environment. Noise levels were monitored over a continuous 48-hour period at 12 locations to evaluate the hour-by-hour and daily variation in noise levels. Short-term measurements were made at 15 additional locations to quantify the various noise environments. The location of the measurements are shown on Figure 5. Locations A through L present the long-term measurements. The data from these measurements are shown in Tables 3 through 14 in Appendix D. The results of the short-term measurements at Locations 1 through 15 are summarized in Table 15 in Appendix D. Day/night average noise levels range from a high of about 82 dBA in rear yards of homes adjacent to State Route 24 down to about 49 dBA at locations on the shielded or far side of ridges from the highway. The residual $L_{dn}$ of 49 dBA results from regular high altitude jet aircraft overflights.




Source: Lafayette General Plan Data Base (1992)
Urban Futures, Inc. (August 1994)

# Lafayette Redevelopment Project

## Location of Noise Measurements

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N

Not to Scale

Figure 5

Traffic noise levels throughout Lafayette were calculated for the Lafayette General Plan Database using a noise contour program based on Federal Highway Administration research document FHWA RD77-108. The California Vehicle Noise Emission Levels (CALVENO) developed by Caltrans were used in the model. The noise contour data are tabulated in Tables 16 and 17 of Appendix D. The calculated levels depend upon the number of automobiles, medium trucks and heavy trucks, and the speed of the vehicles to calculate that the average noise level during the noisiest hour approximates the 24-hour day/night average noise level. The hourly data gathered during the long-term measurements indicate that along State Route 24 the $L_{dn}$ is approximately 2 dB higher than the noisiest hour $L_{eq}$. This is due to high noise levels during the early morning hours and late evening hours. Noise levels measured along local streets indicate good correlation between the peak hour $L_{eq}$ and the $L_{dn}$. The results of the computer modeling were adjusted to account for the results of the long-term measurements.

The Bay Area Rapid Transit (BART) system runs in the median of State Route 24 through Lafayette. The noise of the State Route 24 masks (obscures) the noise of BART at most locations most of the time. BART trains are audible at residences located north and south of State Route 24 in western Lafayette where freeway noise is partially shielded at these residences. Noise levels measured at Location 10 in western Lafayette indicate that maximum noise levels due to BART trains can reach about 80 dBA at the residences. BART noise is unique in character and therefore identifiable in comparison to traffic noise. The contribution of BART to the 24-hour average noise level is insignificant, however, due to the continuous noise levels generated by the freeway.

The noise of high altitude jet aircraft is significant in Lafayette in areas where traffic noise is not significant. Aircraft are heard regularly during the daytime. Maximum noise levels resulting from jet aircraft overflights typically range from 50 to 60 dBA and can be as high as 65 to 70 dBA. The $L_{dn}$ resulting from jet aircraft overflights is less than 50 dBA.

**Stationary Noise Sources**

There are no significant sources of commercial noise within the City of Lafayette. Furthermore, no significant stationary noise sources were identified by the Lafayette Planning Department.

*Construction Noise*

Construction noise represents a short-term (temporary) impact on ambient noise levels. A listing of typical construction equipment noise levels is presented in Table 5. Noise generated by construction equipment can often reach high episodic levels. Pile drivers, drills, trucks, pavers, and a variety of other equipment can create extremely high noise levels, but usually for short, sporadic periods of time. Since noise from localized sources typically falls off by about 6 dBA with each doubling of distance from source to receptor, receptors located within about 1,400 feet of a construction site would experience outdoor noise levels greater than 60 dBA during the noisiest phases of construction. Noise associated with construction can often disturb the concentration and communication of nearby residents and pedestrians.

TABLE 5
TYPICAL CONSTRUCTION EQUIPMENT NOISE (dBA)

| Equipment Type | | Noise Level at 50 Feet: Without Noise Control | Noise Level at 50 Feet: With Feasible[1] Noise Control |
|---|---|---|---|
| EARTHMOVING | Front Loaders | 79 | 75 |
| | Backhoes | 85 | 75 |
| | Bulldozers | 80 | 75 |
| | Tractors | 80 | 75 |
| | Scrapers | 88 | 80 |
| | Graders | 85 | 75 |
| | Trucks | 91 | 75 |
| | Pavers | 89 | 80 |
| MATERIALS HANDLING | Concrete Mixers | 85 | 75 |
| | Concrete Pumps | 82 | 75 |
| | Cranes | 83 | 75 |
| | Derricks | 88 | 75 |
| STATIONARY | Pumps | 76 | 75 |
| | Generators | 78 | 75 |
| | Compressors | 81 | 75 |
| IMPACT | Pile Drivers | 101 | 95 |
| | Jack Hammers | 88 | 75 |
| | Rock Drills | 98 | 80 |
| | Pneumatic Tools | 86 | 80 |
| OTHER | Saws | 78 | 75 |
| | Vibrators | 76 | 75 |

[1] Estimated levels obtainable by selection of quieter procedures or machines and implementing noise control features requiring no major redesign or extreme cost.

Source: *Noise from Construction Equipment and Operations, Building Equipment*, Bolt, Beranek, and Newman, U.S. Environmental Protection Agency, December 31, 1971.

*Noise Sensitive Receptors*

Planning for land use compatibility requires that sensitive receptors be identified and that land uses be sited to support acceptable interior and exterior noise levels. Where siting cannot achieve acceptable noise levels, development may be deemed appropriate if mitigation techniques such as soundwalls and insulating building materials can be employed to reduce noise to acceptable levels. Some types of land uses are inherently

more sensitive to ambient noise levels due to both activities involved with these land uses and the amount of insulation from and exposure to various noise levels. These sensitive receptors include residences, hospitals, nursing homes, school libraries, motels and hotels, and outdoor recreational areas. Figure 6 shows the location of sensitive receptors in Lafayette. The 65 CNEL is generally considered the maximum exterior level acceptable for these uses. Sensitive land uses are permitted in areas with ambient noise levels in excess of 65 CNEL if mitigation is provided to reduce interior noise to levels below 45 dB.

Thresholds of Significance

As previously stated, the following thresholds of significance have been established as a general guideline for noise impacts:

- The proposed Project must generate a significant increase in traffic related noise within the boundaries of the sensitive land use. Specifically, Project generated noise would have to increase overall noise levels by at least 5 dBA within a private living area.

  Note that there is no scientific evidence available to support the use of 3 dB as the significance threshold. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dB. In a community noise situation, however, noise exposures are over a long time period, and changes in noise levels occur over years, rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dB, and 5 dB appears to be appropriate for most people.

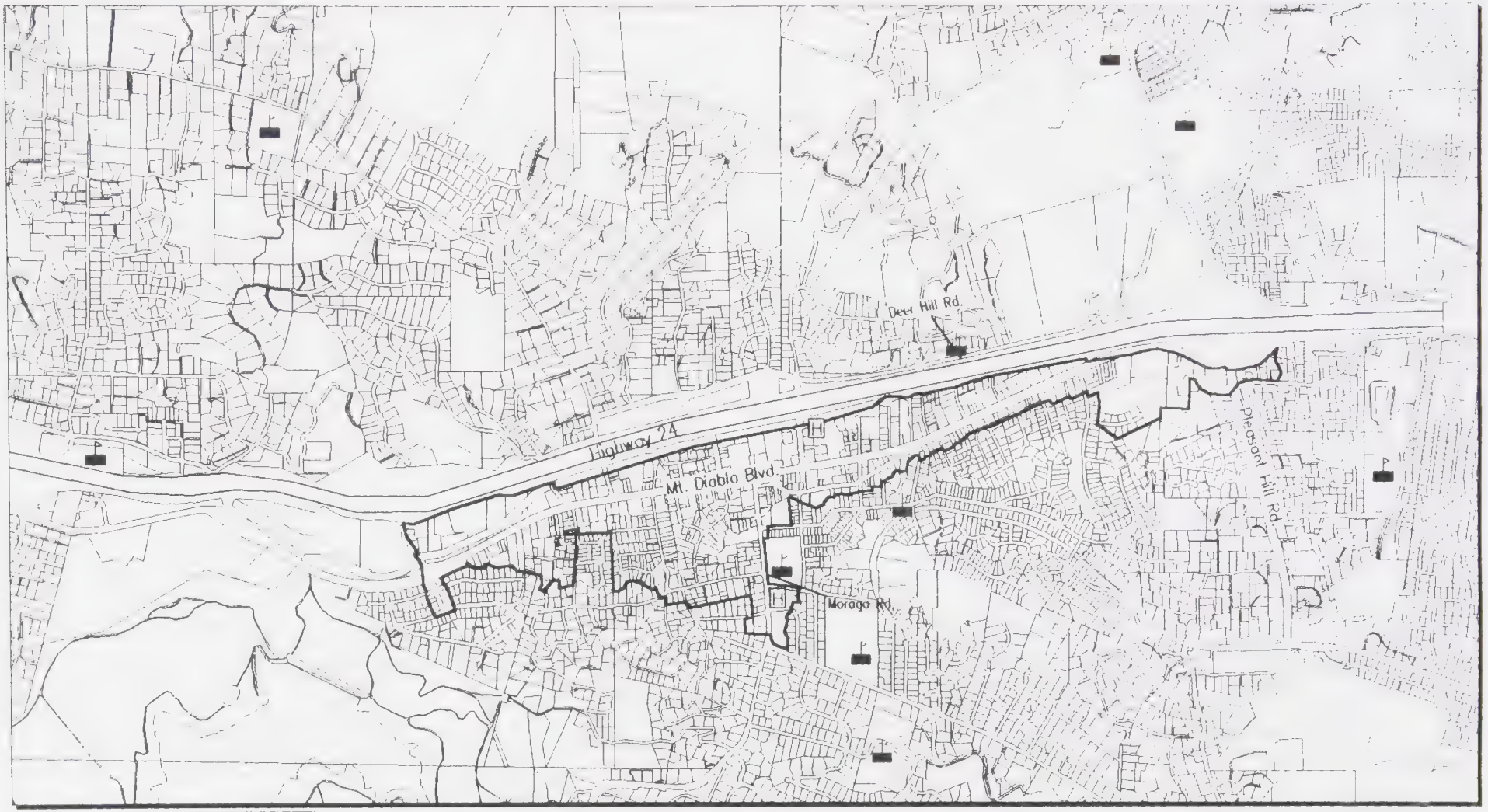
- The proposed Project must generate noise that would exceed common accepted standards or guidelines within the sensitive land use. The State of California exterior noise guideline is 65 CNEL for new residential projects.

Both of these conditions must be met before the proposed Project can be declared as a significant adverse impact.

B. Impacts

Short-Term

Short-term noise generation will occur over the long-term as a result of proposed Project Area improvement projects. This type of noise is caused by construction activities associated with public improvements undertaken by the Redevelopment Agency, or construction of buildings by private developers. Construction noise typically represents a short-term impact on ambient noise levels. Noise generated by construction equipment can often reach high, episodic levels. Bulldozers, concrete mixers, portable generators, backhoes, air guns and a variety of other equipment can create extremely high noise levels, but usually for short periods of time. As previously shown, Table 5 lists typical construction equipment noise levels.




LEGEND

- Convalescent Hospitals
- Public Schools
- Non-Public Schools
- Elementary Schools Currently Not Used for Public Education
- Proposed Project Area

Source: Lafayette General Plan Data Base (1992)
(Revised 8/94)

# Lafayette Redevelopment Project

## Location of Noise Sensitive Receptors

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N

Not to Scale

Figure 6

The short-term impacts are considered significant if construction activity takes place near noise sensitive receptors and are a result of the construction equipment (Table 6) which exceeds the 65 dBA criteria for residential neighborhoods. However, short-term noise impacts, due to construction activity, are generally seen as an acceptable element of development and urbanization and can be mitigated to a level of insignificance if 1) impacts to sensitive receptors are minimal, 2) construction activities are limited to daytime hours, 3) construction equipment is equipped with noise control filters, and 4) construction activity is monitored to ensure that applicable construction noise reduction specifications and guidelines are met.

Long-Term

An increase in ambient noise levels within the proposed Project Area will occur over the long-term as a result of increased growth and development activity within the proposed Project Area.

The main source of noise generated by the Plan's implementation will be from motor vehicles as a result of Plan related developments. As previously shown in Table 1, the General Plan build-out scenario within the proposed Project Area could increase the amount of average daily trips to approximately 18,386 over the life of the Plan. These additional trips could potentially impact proposed Project Area residents and other sensitive receptors due to the amount of increase in vehicle trips over the existing conditions. However, long-term impacts to sensitive noise receptors located outside the proposed Project Area or those that locate within the proposed Project Area following Plan adoption, will have to be evaluated on a project-by-project basis at the time of a specific project's permit processing. The potential significance of an individual project's long-term effect upon an individual noise receptor cannot be adequately determined without knowing long-term site specific land use activities or the type of affected sensitive receptor.

Furthermore, any long-term increase in noise levels caused by Plan related projects will only occur at levels permitted within the City's General Plan and Zoning Code. These noise levels are generally seen as acceptable conditions within the parameters of the City's urban setting provided that sensitive noise receptors are not significantly impacted.

C. Mitigation Measures

The following mitigation measures are recommended as conditions of Project approval:

Short-Term

1. All Plan-related structures or properties involved in rehabilitation/development activities shall comply with the policies outlined in the Noise Element of the Lafayette General Plan.

2. All Project related construction projects shall be reviewed on a project-by-project basis by the appropriate City department to determine possible short-term noise impacts upon identified sensitive noise receptors and to determine the need for Project specific acoustical analysis. Impacts determined to be significant in Project specific acoustical analysis shall be appropriately mitigated.

~~3. All construction activities shall be limited to daytime hours.~~

3. All construction equipment used for Project related construction activities shall be fitted with exhaust muffling and noise control filter devices to reduce noise impacts.

Long-Term

1. All Plan-related structures or properties involved in rehabilitation/development activities shall comply with the policies outlined in the Noise Element of the Lafayette General Plan.

2. All development projects shall be reviewed on a project-by-project basis by the appropriate City department to determine possible long-term noise impacts upon identified sensitive noise receptors and the need for Project specific acoustical analysis. Impacts determined to be significant shall be appropriately mitigated.

3. Future developments initiated through implementation of the Project shall be allowed only in the areas as designated for that particular land use by the City's General Plan and Zoning Ordinance to ensure land use compatibility which will lessen noise impacts upon sensitive noise receptors. As a basis for general compliance, all related long-term site specific land use activities shall adhere to the policies outlined in the Land Use Element of the City's General Plan.

4. Building setbacks and noise barriers shall be considered and used where appropriate in conjunction with specific development proposals in the proposed Project Area to limit stationary and vehicular long-term noise impacts upon sensitive noise receptors.

While not recommended as conditions of Project approval, the following policies are suggested for the decision making body's consideration as ways to further reduce long-term noise impacts:

- Separate residential uses and truck routes so that noise impacts will be contained without unnecessarily lengthening truck trips.

- Restrict trucking hours in residential neighborhoods.

- Minimize stop signs and signals along truck routes; set speed limit based on safety and noise limitation standards.

Level of Significance After Mitigation

Insignificant.

## 2.4 AIR QUALITY

The following contains excerpts from the Air Quality Section of the Lafayette General Plan Data Base as previously incorporated by reference. More specific information on air quality in Lafayette can be found in this document.

A. Existing Conditions

*Climate*

The climate in Lafayette is typical of sheltered inland locations in California. Daytime temperatures in summer average near 90 degrees Fahrenheit. Summer diurnal range is high, with temperatures dropping to the low 50s by morning. Daytime temperatures in winter vary little from the more coastward locations, with maxima in the mid-50s. Winter minima, however, are some ten degrees lower on the average than stations on the coast, with morning temperatures in the low to middle 30s. Sunshine is plentiful in summer, with clear skies most of the time. Summer stratus does sometimes penetrate into Lafayette, particularly at night.

Winds are not measured in Lafayette. The closest wind measurement locations are in Oakland to the west and in Concord to the northeast and east. Under typical weather conditions, winds are from the west at Lafayette, but wind strength is less than at more exposed locations such as Oakland. Wind is highest on average during summer and spring afternoons. During fall and winter, light winds are more common, particularly in the night and morning hours. Calm conditions are relatively frequent. The frequency of calm winds at Concord exceeds 32 percent of the time.

The potential for air pollution in the Lafayette area is relatively high compared to other portions of the Bay Area. Surrounding elevated terrain in conjunction with temperature inversions frequency restrict vertical and horizontal dilution of pollutants during periods of calm winds. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidant, and the East Bay valleys are a frequent scene of photochemical pollution even in the absence of local sources, due to sea breeze transport of contaminants from westward urban areas.

*Air Quality*

**Air Quality Criteria**

The applicable air quality criteria for Lafayette are the State of California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS). The two standards are presented in Table 6 below. The standards have been developed to protect the public from various known undesirable effects upon health, vegetation, and property.

**TABLE 6**
**FEDERAL AND STATE**
**AMBIENT AIR QUALITY STANDARDS**

| Pollutant | Averaging Time | Federal Primary Standard | State Standard |
|---|---|---|---|
| Ozone | 1-Hour | 0.12 ppm | 0.10 ppm |
| Carbon Monoxide | 8-Hour | 9.0 ppm | 9.0 ppm |
| | 1-Hour | 35.0 ppm | 20.0 ppm |
| Nitrogen Dioxide | Annual | 0.05 ppm | --- |
| | 1-Hour | --- | 0.25 ppm |
| Sulfur Dioxide | Annual | 0.03 ppm | --- |
| | 24-Hour | 0.14 ppm | 0.05 ppm |
| | 1-Hour | --- | 0.5 ppm |
| Suspended Particulates | Annual | 50 $ug/m^3$ | 30 $ug/m^3$ |
| | 24-Hour | 150 $ug/m^3$ | 50 $ug/m^3$ |
| Lead | 30-Day Average | --- | 1.5 $ug/m^3$ |
| | 3-Month Average | 1.5 $ug/m^3$ | --- |

$ug/m^3$ Micrograms per Cubic Meter
ppm Parts per Million

The following describes the major sources of air pollutants within the Bay Area Air Quality Management District (BAAQMD):

Carbon Monoxide (CO) is an odorless, colorless gas. It is formed by the incomplete combustion of fuels. Roughly 80 percent of Bay Area CO emissions are estimated to be from motor vehicles. CO emissions from motor vehicles are highest while idling or at low speeds, and decline as speeds increase. CO concentrations are generally highest near heavily travelled roadways. At high concentrations, CO lowers the amount of oxygen in the blood and can cause headaches, dizziness, unconsciousness, and even death. It can also aggravate cardiovascular disease. CO is particularly dangerous indoors and in poorly ventilated areas.

Ozone ($O_3$) is not emitted directly into the environment, but is formed by complex chemical reactions in the atmosphere between oxides of nitrogen and reactive organic compounds (or reactive hydrocarbons) in the presence of sunlight. Ozone formation is greatest on warm, windless, sunny days. The main sources of nitrogen oxides and reactive hydrocarbons, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) and evaporation of solvents, paints and fuels. Automobiles are the largest single source of ozone precursors in the Bay Area, accounting for approximately 42 percent of reactive organic gases and 54 percent of nitrogen oxides. As with CO, reactive hydrocarbon emissions are higher at low vehicle speeds, and decline as speeds increase. Ozone can irritate the eyes and aggravate respiratory disease. It can also reduce visibility and damage vegetation.

Nitrogen Dioxide ($NO_2$) is a reddish brown gas that is a byproduct of combustion processes, as well as the ozone formation process. Automobiles and industry are the main sources. Aside from its contribution to ozone formation, nitrogen dioxide can increase the risk of acute and chronic respiratory disease.

Sulfur Dioxide ($SO_2$) is a colorless gas which can be a precursor of hydrogen sulfide, a gas with a strong odor and effects which damage materials and can have health effects at very high concentrations. It is produced by the combustion of sulfur-containing fuels, such as oil and coal. Approximately 90 percent of Bay Area sulfur dioxide emissions are from large industrial sources, primarily oil refineries. Sulfur dioxide can irritate lung tissue and increase the risk of acute and chronic respiratory disease.

Particulate Matter refers to a wide range of solid or liquid particles in the atmosphere, including smoke, dust, aerosols, and metallic oxides. Some particulate, such as pollen, is naturally occurring, but in the Bay Area most particulate is caused by combustion, factories, construction, grading and demolition, automobiles and roads. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. Particulate matter 10 microns or less in size is of greatest concern because it is more easily inhaled. The U.S. Environmental Protection Agency (EPA) and the State of California have revised their standards for particulate matter to apply only to particles less than 10 microns in diameter ($PM_{10}$).

In addition to these "criteria pollutants" there are other pollutants -- commonly referred to as toxic air contaminants or hazardous air pollutants -- that have received increasing scrutiny in recent years. Air toxics warrant concern for several reasons. First, the health effect can be quite severe. Many hazardous air pollutants are confirmed or suspected carcinogens, or known or suspected to cause birth defects. Secondly, many hazardous air pollutants can be toxic at very low concentrations, and for some chemicals -- such as carcinogens -- there are no thresholds below which exposure can be considered risk-free. Thirdly, many hazardous air pollutants are unregulated. The U.S. EPA and the California Air Resources Board both have programs for regulating air toxics, but experience to date has demonstrated that promulgating these regulations is a very lengthy process.

Industrial facilities often emit toxic air contaminants. Rather than coming out of a smokestack, toxics often result from "fugitive emissions" such as leaking valves and pipes. Sources of air toxics go beyond industry, however. Various common urban land uses can produce hazardous pollutants, such as gasoline stations (benzene), dry cleaners (perchloroethylene) and hospitals (ethylene oxide). Automobile exhaust also contains toxic pollutants such as benzene, lead, ethylene dibromide, and ethylene dichloride.

*Air Quality Record*

The BAAQMD air quality monitoring station nearest Lafayette is located in the City of Oakland and monitors carbon monoxide (CO) and ozone ($O_3$). The air quality monitoring station in Concord, while slightly more distant, monitors other important emissions including nitrogen oxides ($NO_x$) and respirable particulates ($PM_{10}$).

No violations of federal air quality standards have been recorded in Oakland since

1985. The location of Oakland, downwind of no important emission sources, and the generally good ventilation of the atmosphere contribute to relatively good air quality. Concord has recorded violations of federal or state standards for both ozone and particulates for all years since 1985.

Table 7 shows the number of days of violation at the Oakland and Concord monitoring stations for 1992 and 1993.

**TABLE 7**
**NUMBER OF DAYS IN VIOLATION OF CURRENT STANDARDS AT MONITORING STATIONS WITHIN THE LAFAYETTE AIR BASIN**

| Pollutant | Monitoring Station | 1992 | 1993 |
|---|---|---|---|
| **Ozone ($O_3$)** | | | |
| (0.12 ppm, 1 hour) Federal | Oakland | 0 | 0 |
| | Concord | 0 | 0 |
| (0.10 ppm, 1 hour) State | Oakland | 0 | 0 |
| | Concord | 3 | 2 |
| **Carbon Monoxide (CO)** | | | |
| (9 ppm, 8 hour) Federal, State | Oakland | 0 | 0 |
| | Concord | 0 | 0 |
| **Nitrogen Dioxide ($NO_2$)** | | | |
| (25 ppm, 1 hour) State | Oakland | - | - |
| | Concord | 0 | 0 |
| **Sulfur Dioxide ($SO_2$)** | | | |
| (50 ppb, 24 hours) State | Oakland | 0 | 0 |
| | Concord | 0 | 0 |
| **Particulate Matter ($PM_{10}$)** | | | |
| (30 ug/$m^3$) State | Oakland | - | - |
| | Concord | 8 | 2 |
| (50 ug/$m^3$) Federal | Oakland | - | - |
| | Concord | 0 | 0 |

ug/$m^3$ Micrograms per Cubic Meter
ppm Parts per Million
ppb Parts per Billion

Source: Bay Area Air Quality Management District, 1994.

*Significance Emissions Thresholds*

For the purposes of evaluating the proposed Plan, impacts on air quality would be considered significant if:

- The proposed Plan conflicts with the goals and policies of the Lafayette General Plan, Bay Area Air Quality Plan, Growth Management Plan and

Regional Mobility Plan.

The following significance thresholds have been established by the AEP as a general guideline for air quality impacts:

55 pounds per day of ROG
55 pounds per day of $NO_x$
274 pounds per day of CO
150 pounds per day of $PM_{10}$
150 pounds per day of $SO_x$
State 1-hour or 8-hour standard for CO

Table 8 shows the amount and type of development that could be considered potentially significant to the overall air quality of an area.

B. Impacts

Air quality impacts have been divided into short-term and long-term. Short-term impacts are usually the result of construction or grading operations. Long-term impacts are associated with proposed Project Area build-out.

Short-Term

Construction activities associated with the proposed Plan would temporarily increase $PM_{10}$, ROG, $NO_x$ and CO concentrations in the Project vicinity. The primary source of construction-related ROG and $NO_x$ emissions are gasoline and diesel-powered heavy duty mobile construction equipment such as scrapers and motor graders. Primary sources of $PM_{10}$ emissions would be clearing activities, excavation and grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed earth surfaces. Emissions generated from construction activities occurring under the proposed Plan would probably cause temporary increases in pollutant concentrations which could lead to violations of the federal and state maximum concentration standards. The frequency and concentrations of such violations would depend on several factors including the soil composition on the site, the amount of soil disturbed, wind speed, the number and type of machinery used, the construction schedule, and the proximity of other construction and demolition projects.

**TABLE 8**

**PROJECTS OF SIGNIFICANCE**

| Land Use | Potentially Significant Air Quality Impact |
|---|---|
| ***Residential*** | |
| Single-family housing | 170 units |
| Apartments | 259 units |
| Condominiums | 286 units |
| Mobile Homes | 341 units |
| Retirement Community | 678 units |
| ***Education*** | |
| Elementary School | 197,000 sq.ft. |
| High School | 162,000 sq.ft. |
| Community College | 137,000 sq.ft. |
| University | 744 students |
| ***Commercial*** | |
| Airport | 15 daily commercial flights |
| Business Park | 161,000 sq.ft. |
| Day Care | 32,000 sq.ft. |
| Discount Store | 33,000 sq.ft. |
| Fast Food w/o Drive Through | 3,200 sq.ft. |
| Fast Food with Drive Through | 2,700 sq.ft. |
| Hardware Store | 42,000 sq.ft. |
| Hotel | 220 rooms |
| Medical Office | 69,000 sq.ft. |
| Motel | 207 rooms |
| Movie Theater w/o Matinee | 8 screens |
| Movie Theater with Matinee | 8 screens |
| New Car Sales | 47,000 sq.ft. |
| Office (single tenant) | 155,000 sq.ft. |
| Office (multi-tenant) | 180,000 sq.ft. |
| Office Park | 207,000 sq.ft. |
| Racquet Club | 111,000 sq.ft. |
| Research Center | 288,000 sq.ft. |
| Resort Hotel | 193 rooms |
| Restaurant | 20,000 sq.ft. |
| Restaurant (high turnover) | 9,000 sq.ft. |
| Shopping Center | 56,000 sq.ft. |
| Special Activity Centers (Stadiums & Amusement Parks) | All |
| Supermarket | 17,000 sq.ft. |

| Land Use | Potentially Significant Air Quality Impact |
|---|---|
| ***Industrial/Mining*** | |
| Aircraft Manufacturing & Repairs | All |
| Bulk Terminals | All |
| Cement Plant | All |
| Chemical Plant | All |
| Hazardous Waste Treatment & Storage | All |
| Manufacturing | All |
| Mining | All |
| Pulp/Paper Mills | All |
| Refinery | All |
| ***Institutional/Governmental*** | |
| Clinic | 97,000 sq.ft. |
| Government Center | 75,000 sq.ft. |
| Hospital | 170 beds |
| Library | 48,000 sq.ft. |
| Nursing Home | 713 beds |
| U.S. Post Office | 26,000 sq.ft. |
| Freeway Lane Addition | All |
| Designation of New Transportation Corridor | All |
| New Freeway/Highway | All |
| Auxiliary Lanes | Beyond One Ramp |
| Waterport | All |
| Sewage Treatment Plant | All |
| Rail | All |
| Cogeneration Project | All |
| Landfill | All |
| Incineration | Hazardous Medical or Municipal Waste |
| Power Generating Facility | All |
| Waste to Energy | All |

Source: Association of Environmental Professionals, June 1992

Heavy-duty equipment emissions are difficult to quantify because of day-to-day variability in construction activities and equipment used. However, as an example, typical emission rates for a diesel powered scraper were obtained from the South Coast Air Quality Management District Air Quality Handbook. A Diesel powered scraper is the most common piece of equipment used for grading operations. If two pieces of heavy equipment were operating at one time, and if all of the equipment operated for eight hours per day the following emissions would result: 23 pounds per day of carbon monoxide, 99 pounds per day of nitrogen oxides, 10 pounds per day of hydrocarbons, 7.4 pounds per day of sulfur oxides and approximately 6.5 pounds per day of particulates.

Based on these estimates, emissions associated with short-term construction activities could potentially exceed significance thresholds for project operations. It should be noted, however, that this method assumes that the Plan is one large development project that will be under construction for thirty years. Therefore, the resulting emissions are estimates of total cumulative emissions and are not representative of individual project emissions. Daily emissions for individual projects would actually be less given the smaller size and shorter construction phase. More detailed project specific analysis demonstrating compliance with regional air quality regulations will be required as development occurs.

Long-Term

The main source of emissions generated by the proposed Plan's implementation will be from motor vehicles. Other emissions will be generated from the residential and commercial combustion of natural gas for space heating and other uses as well as the generation of electricity.

*Vehicular Emissions*

Regionally, personal commuting, office worker and retail site customer travel will add to regional trip generation and increase the vehicle miles traveled within the local air shed. Locally, project related traffic, especially at a.m. and p.m. peak hours, will be added to major roads within the local roadway system. Approximately 18,386 project related trips could be generated at Project build-out which would impact the major roads within the local roadway system on a daily basis. This projected total of ADTs being traveled on major proposed Project Area roadways represents approximately 613 ADTs per year over the 30-year life of the proposed Plan. The annual increase in emissions generated from this increase in ADTs, in and of itself, is viewed as not contributing significantly to a decline in air quality when based upon Significance Emissions Thresholds.

*Stationary Sources*

Additional emissions will be generated on-site by the combustion of natural gas for space heating. Off-site emissions will be generated due to electrical usage. The generation of electrical energy by the combustion of fossil fuels results in additional emissions off-site.

Industrial and commercial developments that may be located within the proposed Project Area in accordance with General Plan land use designations, in most instances, will not exceed the Significance Emissions Thresholds established by the Association of Environmental Professionals (Table 8). However, cumulatively these individual

commercial and residential developments that could occur over the life of the Plan will be in excess of those Significance Emissions Thresholds; therefore, there is a potential significant environmental impact on air quality due to the cumulative impacts of Plan-related developments. Since it is unknown what particular industries might locate in the proposed Project Area at this time, adequate projections of Plan related emissions levels is not appropriate and will have to be conducted on a project-by-project basis. All proposed Plan related development will only occur at levels permitted within the City's General Plan and Zoning Code and must be required to meet emission standards as regulated and controlled through the BAAQMD.

C. Mitigation Measures

The following mitigation measures are recommended as conditions of Project approval:

Short-Term

1. All Plan-related structures and properties involved in rehabilitation/ development activities shall comply with the affected policies pertaining to air quality as outlined in the Lafayette General Plan.

2. To minimize dust generation during grading operations AQMD Rule 403 shall be adhered to which will require watering during earth moving operations.

3. In order to reduce pollutant emissions from construction equipment it shall be properly maintained and tuned.

Long-Term

1. All Plan-related structures and properties involved in rehabilitation/ development activities shall comply with the affected policies pertaining to air quality as outlined in the Lafayette General Plan.

2. To ensure all future Plan related development and/or construction projects meet emissions standards set by the BAAQMD, all projects shall be subject to air quality analysis on a project-by-project basis if that Project meets or exceeds the potentially significant Air Quality impacts shown on Table 8. Such analysis shall determine specific project impacts and establish adequate, long-term measures to mitigate impacts if any are determined to exist.

3. The design and development of pedestrian walkways and bicycle trails shall be encouraged within the Project Area as a means for reducing motor vehicle traffic and air pollution emissions.

While not recommended as conditions of Project approval the following recommendations, where applicable and feasible, are presented as examples for the decision making body's consideration to further reduce potential short-term and long-term impacts to air quality:

Short-Term

a. Minimize Construction Activity Emissions:

- Water site and clean all equipment in the morning and evening.

- Spread soil binders on site, unpaved roads, and parking areas; re-establish ground cover through seeding and watering.
- Employ activity management techniques: increase the distance between the emission sources; reduce or change the hours of construction; schedule activity during off-peak-hours; and require a phased-schedule for construction activities to even out emission peaks.
- Remove silt by paving construction roads, and sweeping streets, and wash trucks leaving construction site.
- Suspend grading operations during first and second stage smog alerts.
- Maintain construction equipment engines by keeping them tuned.
- Use low-sulfur fuel for equipment.
- Avoid using temporary power; use power from the grid instead.

b. Reduce Construction-Related Traffic Congestion

- Provide rideshare incentives, and transit incentives for construction personnel.
- Configure construction parking to minimize traffic interferences.
- Minimize obstruction of through traffic lanes.
- Provide a flagperson to guide the traffic properly.
- Schedule operations affecting traffic during off-peak-hours.

c. Limit Emissions From Architectural Coatings and Asphalt Usage.

- Use low-coating systems where possible.
- Substitute reactive solvents with nonreactive solvents.
- Improve transfer efficiency when solvent-based paints are used.
- Use high-solid or water-based coatings.
- Finish exterior walls of buildings with light-colored materials.

Long-Term

Support and compliance with the Air Quality Management Plan (AQMP) for the City and the surrounding areas is the most important measure to achieve this goal. The AQMP includes improvement of mass transit facilities and implementation of vehicular usage reduction programs. Additionally, energy conservation measures are included. Specific measures which may be appropriate for the proposed Project include:

a. Limit Emissions From Vehicle Trips

- Encourage the use of alternate transportation modes by promoting public transit usage and providing secure bicycle facilities.
- Provide mass transit accommodations; such as bus turnout lanes, park and ride areas, and bus shelters.
- Provide energy conserving street lighting.
- Provide traffic signal synchronization where feasible.
- Provide sufficient service establishments within the office area.
- Encourage formation of van-pools with company vehicles or subsidy and encourage public transit passes.
- Establish telecommuting programs, alternative work schedules, and satellite work centers.
- Schedule goods movements for off-peak traffic hours.

- Provide local shuttle and regional transit systems, transit shelters, bicycle lanes, storage areas, and amenities, and ensure efficient parking management.
- Provide dedicated turn lanes as appropriate.
- Encourage a telecommuting center outside the Central Business District to reduce VMT.
- Include energy costs in capital expenditure analyses.
- Minimize power distribution losses by using dry transformers, high voltages, three phases, and step-downs, where necessary.
- Use devices that minimize the combustion of fossil fuels.

b. Minimize Energy Requirements of Buildings:

- Improve thermal integrity of buildings, and reduce thermal load with automated time clocks or occupant sensors.
- Introduce glazed windows, wall insulation, and efficient ventilation methods; install window-systems to reduce thermal gain and loss.
- Introduce efficient heating and other appliances, such as water heaters, cooking equipment, refrigerators, furnaces and boiler units.
- Incorporate appropriate passive solar design and solar heaters.
- Replace incandescent indoor lighting with fluorescent lamps, and outdoor lighting with halogen lights.
- Capture waste heat and re-employ this heat, in nonresidential buildings, where feasible.
- Limit installed lighting loads to an average of about 2.3 watts per square feet of conditioned floor area.
- Recycle lighting system's heat for space during cool weather; and the exhaust system through plenums during warm weather.
- Install low- and medium-static-pressure terminals in air distribution systems.
- Ensure proper sealing of all buildings, where applicable.
- Design facility entrances with vestibules, where possible.
- Install individually-controlled light switches and thermostats to permit individual adjustments.
- Control mechanical systems, or equipment with time clocks or computer systems.

c. Minimize Potential Exposure of the Public to Air Toxic Emissions:

- Integrate additional mitigation measures into site design such as the creation of buffering areas between a potential sensitive receptor's boundary and potential pollution sources.
- Minimize population-exposure to asbestos emissions and take precautions including, but not limited to, those recommended in Rule 1403.

D. Level of Significance After Mitigation

Less-than-significant.

## 2.5 EARTH RESOURCES

The following contains excerpts from the Geology and Soils section of the Lafayette General Plan Data Base as previously incorporated by reference. More specific information on geology and soils (earth resources) in Lafayette can be found in this document.

A. Existing Conditions

The geology, topography, and soils of Lafayette pose numerous constraints on any future development. Lafayette is located in a recognized seismically-active area. The San Andreas, Hayward, Calaveras, and Concord faults are all major faults located near Lafayette (see Figure 7). These faults are capable of generating earthquakes ranging from 5.0 to 8.5 on the Richter scale. The groundshaking that would result from an earthquake on one of these faults could cause severe damage to structures and other improvements in Lafayette. Such quakes can also cause liquefaction in certain soils as well as landsliding on unstable slopes. All these potential hazards along with other geologically-related constraints must be taken into account when reviewing future development proposals. The specific nature of these constraints is described in more detail in the following subsections.

*Local Geology*

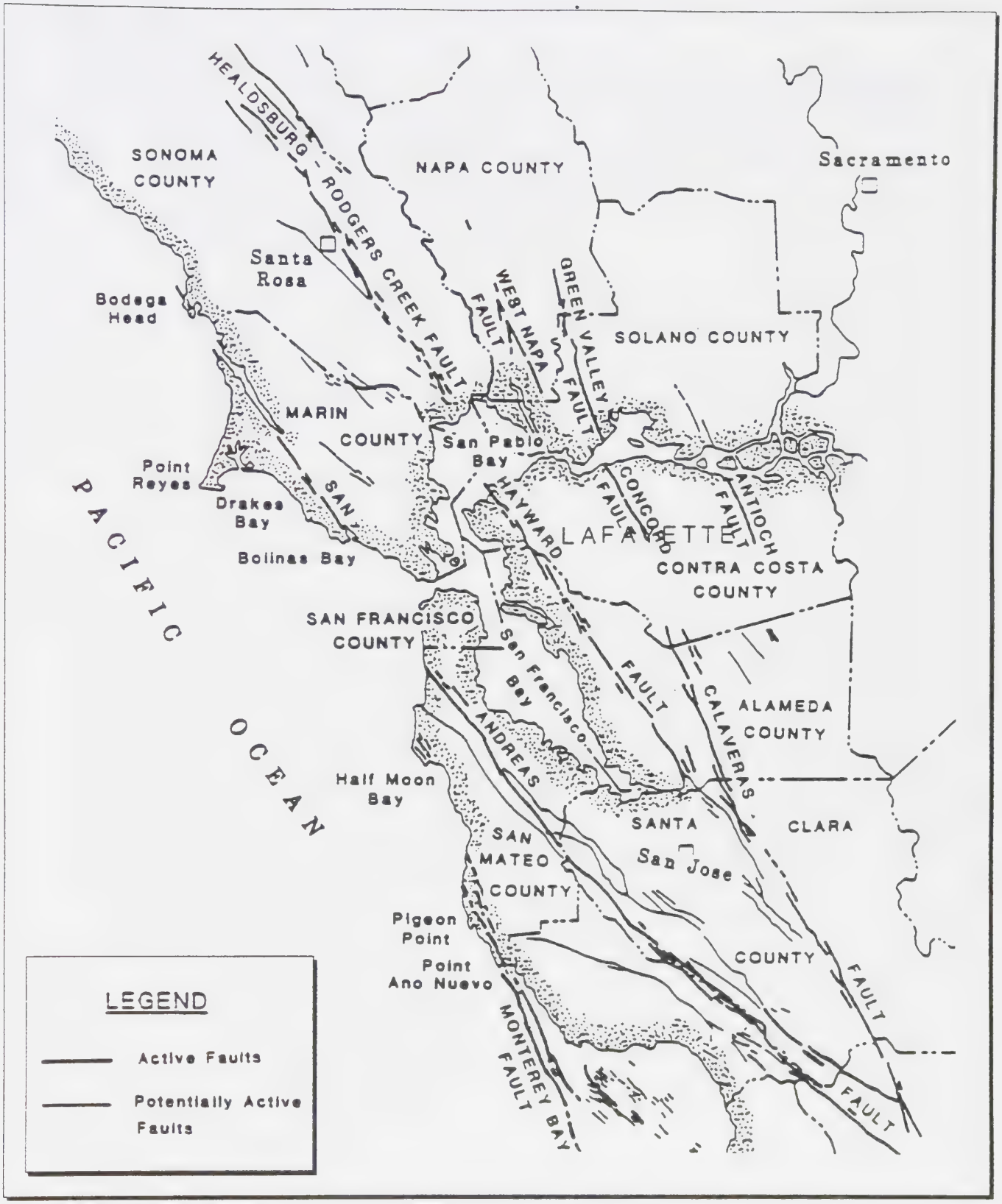
Lafayette is located in the Coast Range of California. In Contra Costa County, the Coast Range is dominated by several northwest trending fault systems which divide the County into large blocks of rock. Within each block, the rock sequence consists of a basement complex of rock of the Franciscan Complex (pre-Tertiary rocks of sedimentary, igneous, and metamorphis origins). In the Lafayette area, this complex is overlain by various rock units of Tertiary age (e.g., Cierbo sandstone, the Orinda Formation, and the Neroly Formation); these units are primarily hard, marine-generated sandstones and shales overlain, in turn, by softer, non-marine (Pliocene) units. In addition to these depositional formations, there are occasional intrusions of younger (Pleistocene) volcanic basalt.

*Topography*

Lafayette consists of a mosaic of ridges and valleys. Past development has focused on the lowlands or more gentle slopes of the various ridges within the City while steeper slopes and higher portions of ridges have been often lightly developed or remain in an undeveloped state. Elevations range from 1,433 feet in the Briones Hills at the north end of the City to elevations of about 200 feet along streams in the eastern portion of the City. As noted above, there are a number of distinct ridges in the City, most of which generally follow the basic northwest trending nature of the area's geology (though there are spur or independent ridges which are not oriented in this direction).

*Faults*

The existing Lafayette General Plan Geologic and Seismic Safety Element does not identify any active faults within Lafayette. There are no Alquist-Priolo Special Study Zones within Lafayette (these are zones where geotechnical analyses are required by State law as part of the review process for proposed development). This absence of active faults is reconfirmed in the recent geologic analysis conducted in revising the Contra Costa County General Plan (Contra Costa County Community Development




Source: Brown and Kockleman (1983)

# Lafayette Redevelopment Project

## Regional Fault Map

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N

Not to Scale

Figure 7

Department, 1990). While a number of ~~faults~~ traces of the Las Trampas fault have been mapped in Lafayette (see Figure 8), none of these traces and the Las Trampas fault itself ~~faults~~ meet the requisite criteria to be identified as active or potentially active. However, this does not mean that future seismic activity along identified faults in Lafayette is impossible. Seismic activity along these faults, either as induced by a major earthquake on one of the large, active faults in the nearby area or as an independent movement along these local faults, could generate significant damage to structures and result in injury to residents.

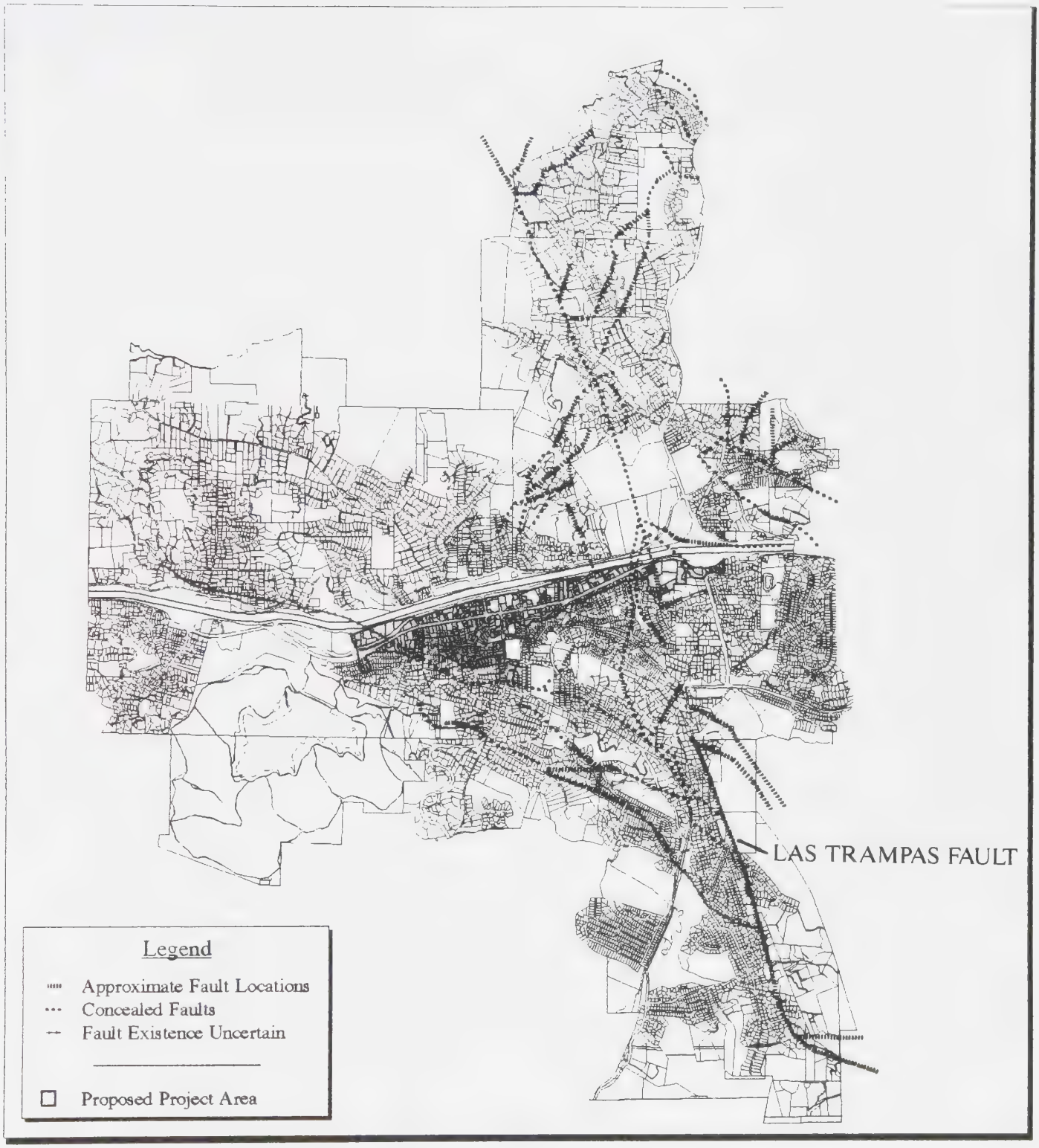
The existing Geologic and Seismic Safety Element of the Lafayette General Plan recognizes this hazard and includes a policy that no "very critical," "high priority," commercial, or large apartment buildings (more than 5 units) be permitted to be placed on the mapped traces of the Las Trampas Fault. The Element goes on to prohibit such buildings within 50 feet of the mapped trace unless a geotechnical investigation can prove that the area is not underlain by the fault. As shown on Figure 8, traces of the Las Trampas Fault are within the proposed Project Area.

Whether the mapped faults in Lafayette are active or not, residents of the City can expect severe groundshaking during major earthquake events on nearby active faults. As is noted in the EIR on the revised Contra Costa County General Plan (1990, p. 12 of Appendix K),

> "Every time an earthquake occurs, it help locate active faults and establish probability patterns for projected future earthquakes. The written history of Contra Costa County indicates that it has experienced frequent earthquakes. Early explorers and settlers in the Bay Area told of earthquakes that must have been felt in Contra Costa County, and the continuous history that has been maintained since the early 1800s clearly shows that the County has been subject to numerous seismic events. They show the pervasiveness of seismic events in this region; one authority has estimated that there have been approximately sixty damaging earthquakes in the Bay Area since 1800. Almost all of these were felt in Contra Costa County, and some did extensive damage here. Some of these originated on faults located within the County and some in other parts of the region. There is no question that the six major Bay Area earthquakes occurring since 1800 affected the County, nor that at least two of these faults that produced them run through or into the county. These earthquake and the originating faults include the 1836 and 1868 earthquakes on the Hayward fault, and the 1861 earthquake on the Calaveras fault. Two earthquakes, in 1838 and 1906, originated on the San Andreas fault, west of the county near San Francisco or to the south, and one earthquake (with two major shocks) which was felt and caused some damage in the County, occurred in 1872 and was centered north of Contra Costa County in the Vacaville-Winters area of Solano County. A smaller, similar earthquake, centered near Collinsville in Solano on a fault of uncertain identity, occurred in 1889."

*Landslides*

Lafayette contains numerous areas with slopes exceeding 30 percent. Previous landslide mapping done for the area indicates numerous locations where landsliding can be expected given saturated soils, construction-related disturbance of the soil, and/or seismic activity in the area. Recent EIRs prepared for proposed projects in Lafayette include site-specific geologic analyses of several of the various ridge systems within the City.




Source: Lafayette General Plan Data Base (1992)
(Revised 8/94)

# Lafayette Redevelopment Project

## Local Fault Map

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N

Not to Scale

Figure 8

It is essential that slope stability be considered when reviewing any future project within Lafayette. Improper construction of improvements in areas with slope stability constraints can result in damage or loss of these improvements with consequent risk of injury to humans using these improvements.

Within the proposed Project Area, landslides are less likely to occur as a result of Plan implementation because all of the areas which can sustain additional development as part of the build-out scenario as described in Section 1.6 are located in relatively flat areas with a limited slope.

*Liquefaction*

Liquefaction is a specialized form of ground failure caused by earthquake ground motion. It is a "quicksand" condition occurring in water-saturated, unconsolidated, relatively clay-free sands and silts caused by hydraulic pressure (from ground motion) forcing apart ground material particles and forcing them into quicksand-like liquid suspension. In the process, normally firm, but wet, ground materials are transformed into semi-liquid mixtures.

Catastrophic failures have provided a sobering reminder that liquefaction poses a major threat to the safety of engineered structures. Major landslides, settling and tilting of buildings on level ground, and failure of water retaining structures have all been observed as a result of this type of ground failure. Abundant evidence of slope failure attributable to liquefaction can be seen in photographs taken throughout the Bay Area after the 1906 San Francisco earthquake. It should be emphasized that great earthquakes anywhere in the Bay Area are capable of triggering liquefaction in Contra Costa County.

In many instances it is possible to evaluate the liquefaction potential of granular material rather inexpensively. However, this is not to infer that the consequences of liquefaction, should it occur, are as easily evaluated. Consequences may include effects as minor as slight settlement or as major as the loss of a reservoir.

Within the area of continually wet unconsolidated deposits, the degree of seismic risk is closely related to local ground conditions. A site underlain by a great thickness of potentially unstable material (soft, compressive muds and loose, clay-free sands, etc.) is extremely hazardous. It should be recognized that such a site has a very limited development potential. Conversely, a site underlain by a minimum thickness of soft muds possesses a much better development potential. Utilizing existing knowledge of foundation engineering, such a site could be made suitable for a variety of land uses.

Layers of ground material that are liquefied during an earthquake undermine the support of both natural landforms and man-made structures. Bluffs and ridges of unconsolidated material may slump under their own weight. Buildings and structures may sink and lean. Often used photographs taken after the 1964 Nigata, Japan earthquake show a group of multi-story apartment buildings leaning acutely or lying on their sides. These buildings remained intact, but this is not always the case when foundation support is diminished.

Liquefiable soils were identified in the Geologic and Seismic Safety Element of the existing Lafayette General Plan. These soils are shown on the accompanying Liquefaction Potential Map (Figure 9) as it relates to the proposed Project Area. As shown in Figure 9, most of the proposed Project Area is within an area that contains Liquefiable soils.

*Other Potential Geologic Hazards*

In the absence of proper engineering and construction, development can result in soils settlement which can damage structures and improvements. Certain soils can expand when wet, again damaging improvements. Finally, construction activities can result in bared soils which erode; this erosion can lead to sedimentation of receiving waterways. The constraints posed by the soils present in Lafayette are summarized in the following subsection.

*Soils*

The Lafayette area contains a number of different soil types. There are four basic soil assemblages mapped by Contra Costa County, including the Diablo-Altamont, Association, the Tierra-Antioch Association, the Clear Lake drained-Botella-Salinas Clayey Variant Association, and the Los Osos-Millsholm-Gazos Association. Specific soil types as mapped by the Soil Conservation Service (1974) are described in the Lafayette General Plan Data Base, along with their characteristics as regards erosion potential, shrink-swell potential agricultural capability rating.

*Thresholds of Significance*

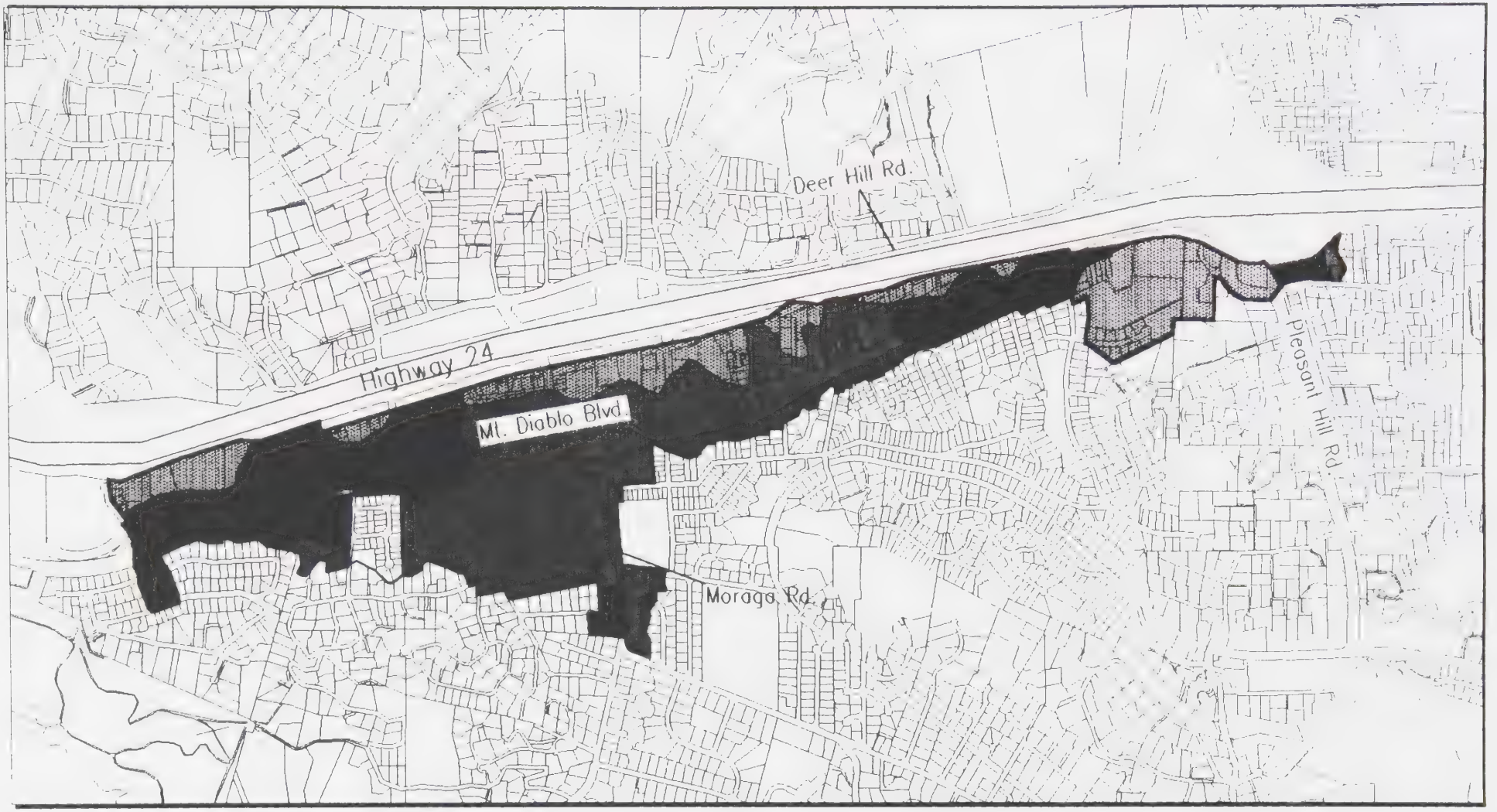
Significance thresholds have been established by the Association of Environmental Professionals (AEP) as a general guideline. A project will cause significant impacts to earth resources if it:

- Exposes people or structures to major geologic hazards.
- Projects within 500 feet of an active or potentially active faults are considered to have potentially significant geologic/geotechnical impacts.

B. Impacts

As previously stated, seismic impacts are considered significant if proposed Project Area people and structures are exposed to major geologic hazards. In addition, projects within 500 feet of an active or potentially active fault are considered to have potentially significant geologic/geotechnical impacts. As previously stated, within the proposed Project Area there are no active faults that meet the criteria to be identified as active or potentially active. However, seismic activity along faults within Lafayette could be induced by a major earthquake on one of the large, active faults in the nearby area, and could generate damage to structures and result in injury to residents.

It is highly probable that the proposed Project Area will be subjected to one or more significant groundshaking events during the lifetime of the proposed Plan due to the proximity of active faults outside of the proposed Project Area. Since there is active or potentially active faults located in the general region of the proposed Project Area, impacts from active faults (i.e., San Andreas) upon the proposed Project Area and the City of Lafayette as a whole should be considered significant. Damage to structures




Source: Lafayette General Plan Data Base (1992)
Urban Futures, Inc. (Revised August 1994)

Legend

- Proposed Project Area

Liquefaction Potential

- Virtually None
- Probably Absent
- Possibly Present

# Lafayette Redevelopment Project

## Liquefaction Potential Within the Proposed Project Area

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N

Not to Scale

Figure 9

could occur and public safety could be threatened if new structures are not constructed to withstand anticipated maximum ground shaking events.

Additionally, proposed Project Area residents will continue, in some instances, to be susceptible to soil hazards, as described under A. Existing Conditions. New development in these susceptible areas could generate potential risks for an unknown number of new residents.

However, implementation of the proposed Plan will beneficially affect existing structures and supportive infrastructure within the proposed Project Area by providing rehabilitation programs for upgrading deficiencies where such improvement is warranted.

C. Mitigation Measures

The following mitigation measures are recommended as conditions of Project approval.

1. Geotechnical and soils engineering reports shall be prepared in conjunction with the preparation of preliminary design layouts and grading plans for Plan-related development projects within the proposed Project Area. These studies will determine specific areas of hazardous soil conditions in those areas generally identified under A. Existing Conditions herein.

   These reports will provide specific mitigation measures for the treatment of potential geological hazards including seismic shaking, liquefaction and other hazardous soil conditions.

2. There are four related initial actions which the City of Lafayette and the Agency shall follow to ensure mitigation of seismic related hazards:

   a. Utilize geologic and seismic data in land planning so that identified risk areas, if any, are avoided or structures and landforms treated and designed to reflect local site conditions;

   b. Make sure that local grading and building codes reflect measures to minimize possible seismic damage;

   c. Inspect older buildings and improve earthquake design features when possible;

   d. Maintain a disaster preparedness plan.

3. All Plan-related rehabilitation/development activities shall be subjected to the policies as outlined in the Lafayette General Plan.

4. The faults identified in A. Existing Conditions are considered to be seismically active and capable of generating major earthquakes. The direct impacts of these faults upon proposed projects shall be considered during preliminary planning processes, as deemed necessary by Project specific environmental impact analysis.

5. The geotechnical and soils report recommendations as stipulated in C. Mitigation Measures, 1., of this Section, shall be incorporated into the design

of new building foundations and roadways.

6. All rehabilitation and new development projects implemented as a result of the proposed Project, shall be built in accordance with current and applicable Uniform Building Code standards and all other applicable City, County, State and Federal laws, regulations and guidelines, which may limit construction and site preparation activities such as grading, and make provisions for appropriate land use restrictions, as deemed necessary, to protect residents and others from potential environmental safety hazards, either seismically induced or those resulting from other conditions such as inadequate soil conditions, as generally described under A. Existing Conditions, which may exist in the proposed Project Area.

D. Level of Significance After Mitigation

Insignificant

## 2.6 TRANSPORTATION AND CIRCULATION

The following existing conditions section contains excerpts from the Transportation Report for the Lafayette General Plan (the "Transportation Report") prepared by Robert L. Harrison as previously incorporated by reference. More specific information on transportation and circulation in Lafayette can be found in this report.

A. Existing Conditions

**Vehicular Transportation**

*Freeway*

The most important single transportation facility in Lafayette is the State Route 24 (SR 24) freeway which traverses the City east and west and thereby divides the City into north and south areas. The freeway is an eight lane fully limited access facility which carries about 155,000 vehicles per day through the City.

The SR 24 freeway operates in Lafayette with limited congestion for most hours of each day. There are, however, bottlenecks in the freeway system on each side of the city limits. To the west is the Caldecott Tunnel which limits the capacity of the freeway and causes traffic to queue back from the tunnels. This congestion does not typically extend all the way to Lafayette but can be a serious delay for motorists driving toward Oakland. Just beyond the easterly city limits SR 24 intersects the I-680 freeway. This interchange is the source of considerable congestion which causes traffic to back up into Lafayette at afternoon peak hours.

Lafayette is served by three interchanges with SR 24. The Acalanes Road interchange is a full cloverleaf with collector roads. Traffic volumes are relatively light, and there is very limited congestion at this interchange.

The Central Lafayette interchange consists of hook ramps at Deer Hill Road for westbound traffic, an eastbound off ramp at Oak Hill Road and an eastbound on ramp at First Street. Much of the traffic using this interchange from the south use Moraga Road and a portion of Mt. Diablo Boulevard to reach the freeway. This requires added turning movements at several intersections in the downtown area where intersection service levels are below the city's adopted standard.

The Pleasant Hill Road interchange is a full cloverleaf with collector roads. The signalized intersection at the eastbound ramps operates with little congestion. There is considerable congestion, however, during morning peak hours for traffic southbound on Pleasant Hill Road attempting to enter the freeway for the afternoon peak traffic using the eastbound to northbound loop leaving the freeway to go north on Pleasant Hill Road.

While the freeway forms somewhat of a barrier to fully free north-south local traffic movements within the city, it also provides the major link between Lafayette and important activity centers throughout Contra Costa County and the Bay Area. The freeway, as a major regional connector, also attracts users from areas beyond the city's boundaries and thus causes one of the most frequently heard concerns from local residents, the problem of through traffic using Lafayette streets to access the freeway.

*Streets*

The City street system is divided into four functional categories based on the function and traffic load of each street. A brief description of the functions and existing daily traffic loads for arterial streets is shown in Table 9 below.

**TABLE 9**
**ARTERIAL STREETS AND EXISTING DAILY TRAFFIC**

| Functional Category with Assigned Streets | Average Daily Traffic |
|---|---|
| Major Arterials - Streets which connect the most important activity centers | |
| Pleasant Hill Road | 18,000 to 40,600 |
| Mount Diablo Boulevard | 8,600 to 27,000 |
| Moraga Road | 14,100 to 22,700 |
| Minor Arterials - Major streets which connect important activity centers | |
| First Street-Deer Hill Road to Mt. Diablo Blvd. | 21,000 |
| Deer Hill Road | 7,400 to 21,000 |
| Glenside Drive/Reliez Station Road/Olympic Blvd. | 10,200 to 16,200 |
| Oak Hill Road-Deer Hill Road to Mt. Diablo Blvd. | 13,500 |
| St. Mary's Road | 4,900 to 10,800 |
| Acalanes Road/Glorietta Boulevard | 6,000 to 7,100 |
| Reliez Valley Road | 4,000 to 5,300 |

Source: Compilation of traffic data from several recent studies by Robert L. Harrison.

Major arterial streets have traffic volumes which are generally greater than 20,000 vehicles per day, are usually divided, provide separate turning lanes and have limited driveway access. Minor arterial streets serve traffic volumes of 5,000 to 20,000 vehicles per day and may be improved to include a divided roadway, separate turning lanes and traffic signals an important intersections. Where arterial streets do not have the improvements needed to efficiently serve traffic, congestion and delay for motorists is usually the result.

In addition to major and minor arterial streets there are collector and local streets. These streets carry lower traffic loads and are intended to serve local properties as well as carry traffic. The collector streets listed below represent streets with daily traffic loads of 2,000 to 5,000 vehicles per day. All other streets within the City are considered local and carry less than 2,000 vehicles per day. Local streets have the primary purpose of providing access to individual properties and carrying local traffic to other streets. The collector streets in Lafayette are as follows:

Dewing Avenue - Brook Street to Mt. Diablo Boulevard
Mountain View Drive - Brook Street to Mt. Diablo Boulevard

Brook Street
Moraga Boulevard
Stanley Boulevard
Rohrer Drive
Silverado/Burton Drive
Hamlin Road/Sweet Drive
Happy Valley Road
Upper Happy Valley Road

A commonly used indicator of traffic conditions is the ratio of volume-to-capacity (V/C ratio), which is used to quantify the Level of Service (LOS) at a mid-block lane configuration on major intersections. Levels of Service are, in increasing order of congestion, defined as "A" through "F" (see Table 10). Beyond LOS "E", capacity has been exceeded, and arriving traffic will exceed the ability of a given street to process it efficiently. If the impacts of a project change the roadway LOS to beyond "D" then the impacts are considered significant. If LOS goes from "A" to "C" then the impacts are not considered significant because the roadway is still free flowing without any congestion.

Additionally, Lafayette has adopted three different signalized intersection service level standards for various areas within the City. The City uses three of the five area standards required by the Contra Costa Transportation Authority (CCTA) as presented in the Contra Costa Transportation Improvement and Growth Management Plan (GMP). For the commercial area the City has adopted the "urban" standard, a high service level D, Volume to Capacity (V/C) ration 0.85 to 0.89. For open space areas the City has adopted the "semi-rural" standard, a high service level C, V/C ration 0.75 to 0.79. In all other areas the City uses the "suburban" standard, a low service level D, V/C ration 0.80 to 0.84.

**TABLE 10**
**LEVEL OF SERVICE DESIGNATIONS**

| Level of Service | Volume-to-Capacity Ratio | Traffic Conditions |
|---|---|---|
| A | 0.00-0.60 | Free Flow |
| B | 0.61-0.70 | Stable Flow |
| C | 0.71-0.80 | Stable Flow |
| D | 0.81-0.90 | Unstable Flow |
| E | 0.91-1.00 | Forced Flow |
| F | Greater than 1.00 | Jammed Flow |

Source: TJKM Transportation Consultants/Willdan Associates

The CCTA has adopted technical procedures to calculate signalized intersection Level of Service. These procedures tend to underestimate the level of congestion found on Lafayette streets. The Transportation Report described the existing conditions on City streets based on Transportation Research Board (TRB) Circular 212 procedures

(modified to account for right turns on red) as well as the procedures recommended by the CCTA. In addition, where neither of the above methods properly account for the actual delay experienced at intersections, an approximation of existing conditions based on observed conditions is reported. Existing intersection Level of Service is shown in Table 11.

Using the procedures recommended by the CCTA, the only signalized intersections identified within the Transportation Report which do not meet service level standards are on Pleasant Hill Road at Deer Hill Road and at Spring Hill Road. Pleasant Hill Road north of SR 24 carries the highest traffic volumes of any City street and experiences significant congestion southbound in the morning peak hours and northbound in the afternoon peak hours. The intersection of Pleasant Hill Road with Reliez Valley Road experiences significant congestion but the service level which results from applying the procedures required by the CCTA is an acceptable level C. The Circular 212 methodology which was recommended for use in the Lafayette General Plan analysis results in a service level E at this intersection. Intersections which currently do not meet service level standards are shown in Table 11.

**TABLE 11**
**INTERSECTIONS WHICH DO NOT MEET SERVICE LEVEL STANDARDS**

| | Morning Peak Hour | | | | Afternoon Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|
| Intersection | Trans V/C | Auth'ty LOS | General V/C | Plan LOS | Trans V/C | Auth'ty LOS | General V/C | Plan LOS |
| Pleasant Hill Road with: | | | | | | | | |
| Deer Hill Road | 1.04 | F | 1.25 | F | 1.08 | F | 1.30 | F |
| Spring Hill Road | 0.78 | C | 1.05 | F | 0.92 | E | 1.12 | F |
| Reliez Valley Road | 0.79 | C | 0.97 | E | 0.79 | C | 0.99 | E |
| Mt. Diablo Blvd. with: | | | | | | | | |
| *Moraga Road | 0.62 | B | 0.78 | C | 0.65 | B | 0.90 | E |
| At the following two intersections afternoon peak hour observed service level is E due to the downstream congestion at Moraga Road. | | | | | | | | |
| *Oak Hill/Lafayette C. | 0.39 | A | 0.62 | B | 0.58 | A | 0.85 | D |
| *First Street | 0.48 | A | 0.81 | D | 0.47 | A | 0.80 | D |
| Moraga Road with: | | | | | | | | |
| *School Street | 0.69 | B | 0.87 | D | 0.66 | B | 0.82 | D |
| | | | | | | | Observed Service Level | E |

* = Roadways located in the Project Area.

NOTES:
1. Trans Auth'ty based on the technical methods recommended by the CCTA and as shown in the LTS Working Paper 4, Table 4-5.
2. General Plan based on Circular 212 modified for right turn on red.
3. "Observed Service Level" based on LTS Working Paper 4, Table 4-5.

Source: Robert L. Harrison

Other intersections which are known to experience significant congestion and apparently do not meet service level standards are primarily in the downtown area. Again, the methods of analysis recommended by the CCTA result in service levels which indicate that some of these intersections do not experience significant congestion. Intersections in this category include Mt. Diablo Boulevard at Moraga Road, at First Street and at Oak Hill Road and Lafayette Circle. In addition, Moraga Road at School Street experiences service levels below adopted standards.

*Unsignalized Intersections*

Generally, unsignalized intersections do not experience significant congestion or delay for the majority of motorists. When traffic volumes build to a level where delay may be a problem at an unsignalized intersection, this problem can usually be solved by providing a traffic signal. There are several unsignalized intersections in Lafayette which because of the high traffic volumes served have been studied in the Lamorinda Traffic Study and in other traffic studies.

Level of Service for unsignalized intersections is measured only for those vehicles which experience delay. For multi-way stop intersections all vehicles are required to stop and an average Level of Service and Volume to Capacity Ratio can be calculated for the entire intersection. For the typical one or two way stop intersections, service level is reported for only those vehicles which are required to stop or to wait to make a left turn. Frequently the minor street volume is a small percentage of the total traffic which passes through the intersection. Traffic on the minor street may face significant delay before there is a gap in the major traffic flow and a low service level for this small portion of total traffic is the result. The great majority of traffic at the intersection experiences no delay but the reported service level for the minor street will necessarily be low. Service level for selected unsignalized intersections is shown in Table 12.

Four of the nine intersections shown in Table 12 experience operating problems due to the high traffic volumes served at peak hours. For most of these high volume intersections, prior traffic studies have recommended installation of a traffic signal to relieve the existing congestion and delay problems. Traffic signals are recommended when traffic volumes exceed minimum thresholds defined by the operators of major street systems such as Caltrans. These thresholds are known as traffic signal warrants. As a quick check on when a traffic signal may be needed, peak hour traffic volumes are compared to Warrant 11, the Peak Hour Volume Signal Warrant.

Based on the peak hour traffic signal warrant criteria, all of the intersections in Table 12, with the exception of Moraga Boulevard at Moraga Road, where service levels are worse than level D should be studied for the possible installation of a traffic signal. Three other intersections should also be studied according to this criterion even though they function at Level of Service D or better. Other factors such as accident history, pedestrians, proximity to other signals, projected traffic, and off peak traffic loads should also be studied before a signal is actually installed.

At the intersection of Moraga Boulevard with Moraga Road the traffic count on the side street, Moraga Boulevard, is so low that the peak hour traffic signal warrant is not satisfied. This means that while the service level is very low for vehicles making left or right turns from Moraga Boulevard, there are too few of them to satisfy the standard criteria for installing a traffic signal at this intersection.

**TABLE 12**
**LEVEL OF SERVICE AT SELECTED UNSIGNALIZED INTERSECTIONS**

| Intersection | Morning Peak Hour V/C | Morning Peak Hour LOS | Afternoon Peak Hour V/C | Afternoon Peak Hour LOS | Meets Pk.Hr. Signal Warrants |
|---|---|---|---|---|---|
| **Multi-Way Stop Intersections** | | | | | |
| Olympic Boulevard with: | | | | | |
| Pleasant Hill Road | 0.77 | C | 1.01 | E/F | Yes |
| Reliez Station Road | 0.66 | B | 0.78 | C | Yes |
| N. Glenside Drive with: | | | | | |
| Reliez Station Road | 0.77 | C | 0.87 | D | Yes |
| St. Mary's Road | 0.58 | A | 0.57 | A | No |
| S. Glenside Drive with: | | | | | |
| St. Mary's Road | 0.68 | B | 0.73 | C | Yes |
| Deer Hill Road with: | | | | | |
| SR 24 Ramps/Laurel | 1.03 | F | 0.86 | D | Yes |
| Oak Hill Road | 0.60 | B | 0.77 | C | No |
| **One-Way Stop Intersections** | | | | | |
| Deer Hill Road with: | | | | | |
| Happy Valley Road (W.B. Left) | * | F | * | D | Yes |
| Moraga Boulevard with: | | | | | |
| Moraga Road (W.B. Left) | * | E | * | E | No |

* V/C not calculated for one and two way stop intersections.

Source: Lamorinda Traffic Study Working Papers 3 and 4, December, 1991. Core Area Traffic Study, September 13, 1989, Table 1, Burton Valley Ridge Study, 1989. Calculations of V/C Ratio by Robert L. Harrison.

With the installation of traffic signals all of the above unsignalized intersections would operate at acceptable service levels. A traffic signal at Moraga Boulevard and Moraga Road may be appropriate even though the peak hour signal warrant is not met. This decision would be based on whether the signal could be designed to cause minimal impact on the great majority of traffic on Moraga Road while still providing a benefit for the relatively few vehicles which now face long delays at the stop sign on Moraga Boulevard.

**Public Transit**

BART

The Lafayette BART station is on the Concord/Daly City line. This line is currently at capacity inbound to San Francisco in the morning peak and outbound from the City in the afternoon peak. The maximum load point on this line is at the MacArthur station, three stops west of Lafayette. Loads passing the Lafayette station are lower than at MacArthur but there are standees on some peak hour trains even as far east as the Lafayette station. BART plans for some increase in the frequency of service through the Lafayette station which may increase patronage or at least reduce the number of standees on the trains at peak hours.

Existing use of BART at Lafayette is about 6,000 daily passengers. Peak hours are from 7:00am to 8:00am when about 1,000 passengers pass through the station and from 5:00pm to 6:00pm when about 900 passengers use the station. The use of the Lafayette BART station is somewhat limited by the parking available at or near the station. The 1,521 spaces at the BART parking lot fill each day and there is considerable overflow parking on city streets. Based on a BART survey of vehicles parked at the station, 24% of passengers are from Lafayette.

The amount of parking available is a limiting factor to the use of BART because driving alone to the station represents about two thirds of all access modes. Being dropped off is the second most important access mode at 15% of all trips. The use of public transit is about 11% and walking to the station is about 7% of total access trips. BART is studying the possibility of increased bus transit access to the station in order to increase the use of the system.

CCCTA-The County Connection

The four CCCTA bus routes which serve Lafayette experience relatively low load factors. Average daily patronage for all of the routes (Route 106, 123, 125 & 990) is 1,604 persons. This measure provides an indicator of how much use there is of the system for each hour that the service is provided. In medium sized suburban areas bus operators often target 20 riders per revenue hour as a reasonable standard for local service. None of the routes in the Lafayette area meets this standard.

In response to the relatively low load factors on these routes, the CCCTA is planning a general public demand responsive van service to replace the routes 123 and 125 in off peak hours. Initial plans for this Flex-Van service assume the use of vans operating on primarily an advanced reservation basis. Peak hour service would continue on the fixed route services as currently scheduled.

B. Impacts

**Vehicular Transportation**

Table 13 compares estimated average vehicle trip ends on a weekday in the proposed Project Area by land use for existing conditions and existing plus Project. Based on General Plan build-out, Project implementation could generate a maximum of 78,676 average daily trips upon proposed Project Area and City-wide roadways (existing plus Project). Although maximum Institute of Traffic Engineers (ITE) trip generation rates were used, the increase can generally be attributed to the potential increase in

office/commercial square footage along Mt. Diablo Blvd. The increase in office/commercial useage has a more significant impact than residential development because these land uses generate traffic at many times the rate of residential usages.

The proposed Project could effect an increase in the daily vehicle trips onto proposed Project Area roadways. However, this will occur over the 30-year life of the proposed Plan. If the additional 18,386 Project related vehicle trips were averaged over the life of the proposed Plan, the increase would be approximately 613 trips per year which seems insignificant when the total existing trips within the proposed Project Area are taken into consideration. This would represent an increase of approximately one percent a year over existing conditions. However, the cumulative negative impacts upon proposed Project Area and City-wide arterials should be considered potentially significant due to the cumulative increase in vehicle trips over the existing conditions. Since some intersections are currently operating at an LOS of "D" or "E", these 613 trips per year could decrease the LOS to an "F" depending on the location, size and timeframe of any developments than might occur over the 30-year Plan. It should be stressed that most of the impacted proposed Project Area and City-wide roadways will be affected by an increase in vehicular traffic but are projected to remain at a Level of Service of "C" or better due to the low volume-to-capacity ratio that currently exists and/or due to the proposed infrastructure improvements proposed for Project-related streets.

**TABLE 13**
**PROPOSED PROJECT AREA**
**AVERAGE WEEKLY VEHICLE TRIP ENDS BY LAND USE**

| Land Use | Existing Condition | Existing ADT | Project Build-Out | ADT |
|---|---|---|---|---|
| Residential | | | | |
| Single Family (Units) | 186 | 1,879 | 41 | 414 |
| Multi-Family (Units) | 1,659 | 10,617 | 1,961 | 12,550 |
| Commercial/Office (sq. ft.) | 1,593,138 | 47,794 | 2,232,208 | 65,712 |
| Totals | | 60,290 | | 78,676 |

Source: Urban Futures, Inc., January 1994
Institute of Traffic Engineers (ITE), Trip Generation, 4 ed., 1987

Long-term impacts to the existing circulation system will be reduced by implementation of various roadway infrastructural improvement projects (generally described in Appendix A); the LOS will increase because a portion of the current roadway deficiencies that constrain the flow of traffic will be corrected.

It should be noted that the traffic analysis is a worst-case scenario based on complete build-out which is not likely to occur in the next 10 to 20 year period *or may never occur*. Therefore, the build-up of traffic to levels projected will be very gradual offering the City ample time to implement measures to reduce impacts, such as signalization and intersection improvements.

The Project's adoption will allow the Agency to assist in the financing of roadway improvement and beautification projects generally described in Appendix A. These

changes may include, but not be limited to improved roadway surfaces, installation and repair of curbs, gutters and sidewalks and upgrading of traffic control devices. Additionally, the Project's implementation will work to affect General Plan goals, objectives and policies with regard to the City's circulation system.

Short-term

With respect to short-term impacts, there may be temporary traffic disruptions during the construction of necessary street and infrastructure improvement Projects which may decrease the LOS that currently exists on the proposed Project Area roadways; these impacts could also affect rail and bicycling facilities. For example, the impacts may include the closing of one lane in a two lane roadway due to construction activities which could decrease the level of service to an unacceptable level (LOS "F"). However, these conditions can be mitigated to a condition of insignificance.

**Public Transit**

Total use of public transit is estimated to be about 2% of total trips made each day in Lafayette.[12] Based upon this assumption, Plan-related developments will generate an additional 368 transit riders (18,386 additional Plan-related vehicle trips x 2%) over the next 30 years or approximately 12 transit riders per year. Based upon this information, there will be no significant impacts to public transit operations. Furthermore, due to the potential intensification of commercial development within the proposed Project Area, in accordance with the Lafayette General Plan, there could be an increase in transit ridership and a decrease in vehicle trips because of the easy access to and from the commercial businesses located in the area.

C. Mitigation Measures

**Vehicular Transportation**

The following mitigation measures are recommended as conditions of Project approval:

Long-Term

1. Projected Plan-related increases in ADTs upon proposed Project Area roadways are not expected to significantly impact existing roadway Levels of Service over the long term in most instances. However, since project related site specifics are not known, such as type, size and location of potential developments, all impacted roadway segments as a result of proposed Plan related projects shall be evaluated on a project-by-project basis to determine specific project impacts including an evaluation of the cumulative impacts of development upon those roadway segments. Analyses shall include intersection capacity analysis and roadway segment trip assignment rates as necessary. Projects found to cause significant impacts to existing LOS shall include measures to lessen project related impacts.

2. All Plan-related structures and properties involved in rehabilitation/ development activities shall comply with the Lafayette General Plan.

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[12] Transportation Background Report prepared for the Lafayette General Plan by Robert L. Harrison.

Short Term

1. Short term impacts to motorists, pedestrians and bicyclists shall be mitigated with the use of standard safety precautions generally employed during project construction, e.g.e, rerouting of traffic, use of flagmen, public notice of route closures and detours and other precautions and safeguards as may be deemed applicable by the appropriate City regulating body.

**Public Transit**

No mitigation measures are recommended as conditions of Project approval.

D. Level of Significance After Mitigation

Insignificant.

## 2.7 BIOLOGICAL RESOURCES

The following contains excerpts from the Vegetation and Wildlife section of the Lafayette General Plan Data Base as previously incorporated by reference. More specific information on biological resources in Lafayette can be found in this document.

A. Existing Conditions

Historical Biotic Environment

Prior to European settlement, the Lafayette landscape was probably an open woodland with a predominance of grassland. Chaparral species and young trees were eliminated or controlled by periodic fires either caused naturally or purposely set by Native Americans. This landscape changed little during Mexican control of California, though the drastic replacement of native grassland species by European invaders began during this period. The immigration from the east coast resulted in the first serious planting of trees in the area. Early settlers planted Black Locust (used for fence posts) and landscaping trees. The next major planting consisted of orchards of fruit trees and walnuts. Today, these orchards have all but disappeared within the Lafayette City Limits.

Suburban development, the last phase of landscape transformation, has been the most rapid and dramatic force in altering the Lafayette environment. In the past 50 years, there has been unprecedented tree planting. With the cessation of cattle grazing and the suppression of fires, the native trees and the chaparral community have expanded. Today, the City is a mosaic of plant communities with native woodland and grasslands interspersed with suburban development and its associated landscaping. The basic natural vegetation communities within the City of Lafayette including the proposed Project Area are described below.

*Grassland*

The grasslands occupy many of the slopes and tops of the remaining undeveloped ridges in Lafayette. These grasslands are dominated by exotic annual species such as soft chess (*Bromus mollis*), foxtail (*Festuca megalura*), wild oat (*Avena fatua*), and ryegrass (*Lolium perenne*). Various broad-leafed herbaceous species are also common in the grasslands. There are remnants of native perennial grasses (e.g., *Stipa pulchra*). Before the arrival of European settlers, grasslands were maintained by periodic burning as well as grazing by herds of elk, antelope, and deer. Fires and grazing continued to support grasslands through the nineteenth century. The twentieth century predilection for suppressing all fires as well as the more recent cessation of large scale grazing in most of Lafayette has resulted in plant succession occurring within the grasslands. Grasslands will become reduced in extent in the absence of active management to maintain this vegetative community. In addition, many areas of grassland have been directly eliminated due to the urban development of Lafayette.

*Oak Woodland*

The climate and geography of Lafayette favor the lush growth of oaks and associated trees. Higher ridges like Lafayette Ridge are heavily wooded with oaks including valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), and black oak (*Quercus kelloggii*). The black oak is found only in the coolest canyons and is rarely seen in the

eastern part of the City. Canyon live oak (*Quercus chrysolepsis*) is sometimes found in drier canyons, and blue oak (*Quercus douglasii*) occurs on a few of the driest ridges. The valley oak extend into the valley bottoms where they attain great size due to deeper soils and adequate water. Many of these oak woodland communities include California bay (*Umbellularia californica*), buckeye (*Aesculus californica*), madrone (*Arbutus menziesii*), and various shrub species like poison oak and hazelnut.

The oak woodlands are often subdivided into more specific vegetation types such as deciduous oak woodland, live oak woodland, oak/bay woodland, etc. For the purposes of this analysis, all woodlands containing native oaks and associated species are typed as oak woodland.

While many of the trees of the oak woodland have been removed due to past construction activities, many remain, some that were preserved and incorporated into landscaping and others in areas that have not yet been developed. In those areas that have remained undeveloped, there are probably more oaks and associated trees than were present in pre-European times due to the suppression of fire and the cessation of cattle grazing. In addition, these native oaks regenerate easily and grow relatively fast if protected from fire and grazing and properly managed.

*Chaparral*

Chaparral is a unique plant community comprised mainly of dense, twiggy, and mainly evergreen shrubs and small trees. This plant community generally occurs in areas with poorer, rocky soils and dry weather conditions (south-facing slopes). Again, this basic vegetation type is often subdivided into more specific communities, but for the purposes of this analysis, the various subtypes will all be considered as chaparral. Representative species include sagebrush (*Artemisis californica* and *A. Douglasiana*), chamise (*Adenostoma fasciculatum*), chaparral pea (*Pickeringia montanna*), coffeeberry (*Rhamnus californica*), and various species of *Ceanothus* and manzanita (*Arctostaphylos spp.*).

This vegetation community occurs on the southern slopes of Lafayette Ridge, around Lafayette Reservoir, and in other drier areas of the City. In earlier times, the chaparral community was controlled by periodic fires. The absence of fire and grazing has allowed the extension of chaparral into a number of grassland areas. In drier areas with poor soils (like Lafayette Ridge), the chaparral community is probably the climax vegetation type. On better soils where chaparral has invaded grasslands (like around Lafayette Reservoir), the chaparral has invaded grassland, and, in its turn, will be succeeded by oaks and other trees, thus becoming an oak woodland community. This plan succession sequence occurs and continues on many of the grasslands in Lafayette. Over the long-term, in the absence of fire or the intrusion of human management, the oak woodlands will dominate the natural landscape except on drier, steeper slopes.

*Riparian Woodland*

Another native vegetation type is the riparian woodland growing along stream channels in the area. Unlike the other vegetation types, this type has remained largely unchanged since pre-European settlement, except where trees have been directly removed for the purpose of development. These woodlands occur in deep soils near stream channels where there is adequate groundwater. Here, the trees, several of which are the same species as occur in the oak woodlands community, reach a large

size due to the favorable conditions. There are large oaks, walnuts, cottonwood, bay, and madrone. Several species of willows line deeper channels along with occasional stands of white alder and bigleaf maple.

*Transitional Landscape or Edge Habitat*

A fifth habitat type is commonly called "edge" habitat. This habitat occurs where different plant communities meet and intergrade. This type of habitat occurs where oak woodland intersects chaparral or grassland or where riparian woodland intersects grassland. A second type of edge habitat occurs within the basic plant communities where microclimatic conditions juxtapose wooded areas with small areas of grass or shrubs. A final type of edge is where any of the natural communities meet planted landscapes.

*Developed Landscape*

There are two basic types of developed landscape (with obviously many variations on these themes). The first and largest type occurs in the valley bottoms. Grasslands and oak woodland in these areas were first planted with orchards. Since then, these areas have been developed for housing or commercial activities and planted with trees and shrubs. The other type of developed landscape occurs on hillsides, especially south and west facing slopes. Here the natural vegetation was generally grass. The few trees that occurred in these locations were often removed when the areas were developed. These areas have also been landscaped.

*Exotics*

While much of the developed landscape includes introduced or exotic species, some of these exotic species are of particular concern due to their ability to naturalize and invade native plant communities or because of their potential fire hazard. While Lafayette does not exhibit significant invasions of such plants as broom, there are locations where this plant is invading native plant communities. Unless these invasions are controlled, broom can be expected to colonize larger areas as is the case in much of Marin County and elsewhere in the Bay Area. A second key exotic plant group is the Eucalyptus. There are numerous groves and plantings of Eucalyptus in Lafayette (especially blue gum or *Eucalyptus globulus*). While many individuals consider these trees to have aesthetic value, they eliminate native habitat and are a significant concern as regards fire hazard. Finally, it is noted that in many locales, the residential landscaping includes plantings of pines, especially the Monterey pine. While these pines have aesthetic value, they also pose an extreme fire hazard.

*Species of Special Concern*

The County General Plan EIR and EIRs prepared in or near the City of Lafayette indicates the potential for fourteen sensitive plant species in the Lafayette area. These plants are listed as follows:

Large flowered fiddleneck *(Amsinckia grandiflora)*
Mt. Diablo manzanita *(Arctostaphylos auriculata)*
Alameda manzanita *(Arctostaphylos pallida)*
Contra Costa manzanita *(Arctostaphylos pungens ssp. laevigata)*
Mt. Diablo fairy lantern *(Calochortus pulcellus)*
Western leatherwood *(Dirca occidentalis)*

Mt. Diablo buckwheat *(Eriogonum truncatum)*
Stickbells *(Fritillaria agrestis)*
Diablo helianthella *(Helianthella castanea)*
Santa Crus tarplant *(Holocarpha macradenia)*
Mt. Diablo phacelia *(Phacelia phacelioides)*
Valley Oak *(Quercus lobata)*
Straggly gooseberry *(Ribes divaricatum var. publiflorum)*

*Grand Trees and Tree Groves*

The City Code has provisions for designating significant tree specimens as "Grand Trees" (Ordinance 38). To date six trees have been reviewed by the City's Tree Commission and granted Grand Tree status. This ordinance also allows the designation of distinctive tree groves. However, to this date, only one grove has been officially designated.

**WILDLIFE**

As there is a mosaic of plant communities in Lafayette, there are also various assemblages of wildlife that reside in or use these various habitats. The types of wildlife occupying the areas surrounding and within the proposed Project Area are typical for this portion of the Coast Range, including such mammals as black-tailed deer, opossum, raccoon, gray squirrels, jackrabbits, gophers, moles, various species of mice and voles, and possibly larger species such as foxes, bobcats, and even mountain lions in the undeveloped, wilder areas near Las Trampas Regional Wilderness and Briones Regional Park. Numerous bird species occupy the proposed Project Area at various times during the year, and there are also large populations of reptiles, amphibians, and insects.

Development along the streams and creeks has also affected the natural fish population. The last survey conducted by the California Department of Fish and Game of Lafayette Creek and Las Trampas Creek was in 1986. The survey indicated 12 to 14 rainbow trout were counted, although it could not be determined if they were a natural reproducing population. A 1982 stream survey of Las Trampas Creek indicated the presence of threespine stickleback, California roach, and a few sculpin. Fish were nearly absent above the drop culvert between the two St. Mary's bridges located just south of the corridor portion of he proposed Project Area. The report notes that Las Trampas Creek is currently not open to salmonid migration due to 12 drop structures and three natural waterfalls. The report states that in its current state the creek is of little fishery value. However, steelhead trout were planted in the creek in 1982, and the trout reported in 1986 could be the survivors or offspring of this planting. While the Department has no current plans to upgrade the streams and fish habitat.

To preserve the wildlife that does remain requires the retention of undeveloped areas that, optimally, include a mosaic of vegetation types and summer water sources. Retaining islands of undeveloped habitat that lack water sources may have value for preserving vegetation and views, but may become impoverished as regards supporting a full range of native wildlife.

The riparian corridors are especially significant as regards wildlife. These habitats while small in terms of the total acreage in the City are extremely rich as regards wildlife. These corridors provide travel routes, cover, water, and a rich supply of foods. One can live in a heavily developed residential area and be continually surprised by the rich

variety of animal life within the narrow riparian corridors that snake through the area.

Finally, it should be noted that the landscaping provided as part of suburban development provides niches for a wide variety of wildlife. This new habitat can be enhanced by planting herbaceous species, shrubs, and trees that have a high wildlife value (that is, that provide food sources, cover, etc.).

*Species of Special Concern*

A review of recent EIRs plus the County General Plan and the EIR prepared for that Plan show that there are potentially eight (8) sensitive wildlife species present in the Lafayette area. The species are listed as follows:

California red-legged frog *(Rana aurora draytoni)*
Alameda whipsnake *(Masticophis lateralis)*
Bald eagle *(Haliaeetus leucocephalus)*
American peregrine falcon *(Falco peregrinus anatum)*
Sharp-shinned hawk *(Accipiter striatus)*
Swainson's hawk *(Buteo swainsoni)*
Prairie falcon *(Falco mexicanus)*
Golden eagle *(Aquila chrysaetos)*

Thresholds of Significance

The following significance thresholds have been established by the AEP as a general guideline for biological impacts. A project's impacts are considered to significantly impact biological impacts if:

- The Project substantially affects a rare or endangered species of plant or animal or the habitat of species.
- The Project interferes substantially with the movement of any wildlife species.
- The Project will disturb an important local biological resource.

B. Impacts

Future development and redevelopment of the proposed Project Area, in accordance with the City's General Plan, City Zoning Ordinance, and all other applicable City, County, State and Federal laws, guidelines and regulations, could result in the elimination and/or displacement of assorted native and non-native plant species (primarily weeds) and some small rodents and mammals located in the proposed Project Area. However, this potential disruption to existing biological resources will not have a significant impact on the proposed Project Area's biotic communities due to their exiting degree of urbanization and amount of vacant land within the proposed Project Area.

Riparian and other significant biotic communities adjacent to the proposed Project Area could be indirectly impacted by redevelopment activities; of particular concern is the development that could occur near the Lafayette Creek and Las Trampas Creek. However, any Plan-related developments within or adjacent to the aforementioned creeks will only increase the existing urbanized land use to a higher density. There is no vacant or previously urbanized land within the proposed Project Area that is located

along the Lafayette or Las Trampas Creeks.

C. Mitigation Measures

The following mitigation measures are recommended as a condition of project approval:

1. Discretionary development which could potentially impact biological resources shall be evaluated prior to project approval by a qualified biologist to assess impacts and if necessary, to develop mitigation measures. This evaluation shall include a complete assessment of all biological resources within the adjacent to the affected portions of the proposed Project Area with particular emphasis placed upon identifying endangered, threatened and locally unique species and sensitive and critical habitats.

2. Discretionary development shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.

3. The California Department of Fish and Game~~, the U.S. Fish and Wildlife Service, National Audubon Society and the California Native Plant Society~~ shall be consulted when discretionary development may affect significant biological resources. Notice shall be made to the Department of Fish and Game after the lead Agency has approved any project that will cause the diversion or obstruction of the natural flow or cause changes in the riverbed, channel or bank of any river, stream or lake. An agreement with the Department of Fish and Game must be made prior to initiating any such changes consistent with the Department of Fish and Game statutory authority.

Level of Significance After Mitigation

Insignificant

## 2.8 PUBLIC SERVICES AND UTILITIES

The following sections contain excerpts from the Lafayette General Plan Data Base as previously incorporated by reference. More specific information on utilities and public services in Lafayette can be found in this document.

### 2.8.1 Water Resources

A. Existing Resources

Domestic water for Lafayette is provided by the East Bay Municipal Utility District (EBMUD). The District has an obligation to provide an adequate, reliable, high quality water supply to all its customers.

The number of District customers in Lafayette increased from 9,443 ~~9,450~~ in 1991 to 9,447 ~~9,497~~[13] in 1992. Water consumption increased from 4.1 ~~1.6~~ million gallons per day in 1991 to 4.8 ~~4.3~~ in 1992~~3~~ which is an increase of 17% ~~168%~~ from 1991. The 1992~~3~~ usage is currently considered to be the best representation of water use not affected by drought conditions which 1991 usage was affected by. Within the proposed Project Area, an estimated 833,324 gallons per day (gpd) of water is being consumed which represents 17% ~~19%~~ of the total amount of water consumed in the City.

EBMUD has an extensive reclamation and water conservation program as described in its Urban Water Management Plan. The District has adopted "Landscape Water Conservation Requirements" that regulate future residential and commercial landscaping so as to minimize water use. Future development in Lafayette must comply with these regulations.

To summarize, there are no current major problems with the water supply and delivery infrastructure. However, EBMUD's limited water supply may constrain future development within its service area.

*Thresholds of Significance*

The following significant threshold has been established by the AEP as a guideline for impacts to water resources:

- If the project-related water demand met or exceeded the safe yield of existing water supplies or reduced the current level of service, thereby requiring development of new facilities and sources beyond those already planned.

B. Impacts

Assuming General Plan build-out of the proposed Project Area, the proposed Plan's implementation could increase the City's demand for water by approximately 23,892 gallons per day. This would represent an approximate increase of less than 1 percent over existing City-wide consumption. It must also be stressed that build-out could occur over the 30-year life of the proposed Plan. Therefore, it is appropriate to calculate increased consumption on an *average yearly* basis over the 30-year life of the

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[13] Updated information provided by the East Bay Municipal Utility District, April 8, 1994.

proposed Plan. As such, the increase in water consumption over existing use is 796 gallons per day. This would represent an approximate increase of less than one percent over existing City-wide daily consumption.

Because development will occur in increments, the water district serving Lafayette anticipates being able to handle increased water demands. Given that portions of the proposed Project Area lack infrastructure, comprehensive planning will be required to ensure that incremental infrastructure improvements are designed in the context of a coordinated and integrated City-wide system. As part of routine project level review, the City has adopted, and is currently in the process of implementing City guidelines for preparation of public facility financing plans. The guidelines call for project applicants to provide an inventory of existing and proposed facilities for seven public utilities, plus build-out assumption, phasing information, and financing proposals.

Although Lafayette has adequate water supplies to handle additional demand, the increased consumption of water projected with build-out of the proposed Project Area is considered regionally significant. Furthermore, it is unclear at this time if this current supply will be available in the future. Plan related impacts upon water resources could change significantly over the 30-year life of the Plan due to several factors including rainfall averages, available storage capacities and regional demand which could affect the amount of water available for consumption for the proposed Project Area and the City of Lafayette as a whole. Therefore, future impacts upon water resources should be assessed on a project-by-project basis. Approvals for all proposed Plan related projects that will directly contribute to a long-term increase in water consumption should concur with the availability of adequate water resources.

C. Mitigation Measures

While the average yearly proposed Plan-related increase in water consumption is not projected to be significant as described above, conditions could change significantly over the 30-year life of the proposed Plan. As such, the following mitigation measure is recommended as a condition of Project approval:

1. All Plan-related growth inducing projects shall be evaluated by Agency staff working with City staff on a project-by-project basis to determine their impact upon local water resources. No project shall be approved unless available water resources are adequate to meet projected demand.

The conservation of water should be of significant concern to all citizens in California, and some conservation proceedings are presently mandated by state legislation. While not recommended as a condition of Project approval, the following measures should be implemented for all proposed Plan related construction projects when appropriate to comply with state legislation:

- Plumbing fixtures that reduce water usage should be utilized (i.e., low volume toilet tanks, flow control devices for faucets and shower heads) in accordance with Title 24 of the California Administrative Code.

- The use of drought-tolerant plant species and drip irrigation systems shall be in conformance with AB 325 in order to reduce water usage.

- Installation of ultra-low flush toilets in all new construction: in accordance with Health and Safety Code Section 17921.3 should occur

three gallons per flush.

- Installation of low flow showers and faucets in accordance with California Administrative Code, Title 24, Part 6, Article 1, T20-1406F should occur.

- Future developers should be assessed a water capacity fee for importation and distribution facilities.

Recommendations to be implemented where applicable:

Interior:

- Supply line pressure: recommend water pressure greater than 50 psi be reduced to 50 psi or less by means of pressure-reducing valve.

- Flush valve operated water closets: recommend three gallons per flush.

- Drinking fountains: recommend installation of self-closing valves.

- Pipe insulation: recommend all hot water lines in dwelling units be insulated to provide hot water quickly with less water and to prevent hot pipes from heating cold pipes.

- Restaurants: use of water-conserving models of dishwashers or retrofitting spray emitters and serving of water at patron request only.

- Hotel rooms: conservation reminders be posted in rooms and restrooms. Thermostatically controlled mixing valve be installed for bath/shower.

- Laundry facilities: water-conserving models of washers be used.

Exterior:

- Use mulch extensively in all landscaped areas. Mulch applied to top soil will improve the water-holding capacity of the soil by reducing evaporation and soil compaction.

- Preserve and protect existing trees and shrubs. Established plants are often adapted to low water conditions and their use saves water needed to establish replacement vegetation.

- Landscape with low water-using plants wherever feasible.

- Minimize use of lawn by limiting it to lawn-dependent uses, such as playing fields. When lawn is used, require warm season grasses.

- Group plants of similar water use to reduce over-irrigation of low-water-using plants.

- Provide information to occupants regarding benefits of low-water-using landscaping and sources of additional assistance.

- Install efficient irrigation systems that minimize runoff and evaporation and maximize the water that will reach the plant roots. Drip irrigation, soil moisture sensors, and automatic irrigation systems are a few methods of increasing irrigation efficiency.

- Use pervious paving material whenever feasible to reduce surface water runoff and to aid in ground water recharge.

- Grade slopes so that runoff of surface water is minimized.

- Investigate the feasibility of using reclaimed waste water, stored rainwater, or grey water for irrigation.

- Encourage cluster development, which can reduce the amount of land being converted to urban use. This will reduce the amount of impervious paving created and thereby aid in ground water recharge.

- Preserve existing natural drainage areas and encourage the incorporation of natural drainage systems in new developments. This aids ground water recharge.

- To aid in ground water recharge, preserve flood plains and aquifer recharge areas as open space.

D. Level of Significance After Mitigation

Insignificant

### 2.8.2 Wastewater

A. Existing Conditions

Wastewater collection, treatment and disposal for Lafayette is the responsibility of the Central Contra Costa Sanitary District. The District treats wastewater at its facility in east Martinez. This treatment facility has a current capacity of 45 million gallons per day (mgd) Average Dry Weather Flow (ADWF) and 210 mgd Peak Wet Weather Flow. Over the last three years average ADWF is 33.6 mgd[14]. The District has adequate treatment and disposal capacity to meet all projected growth within the District through the late-1990s. The District has prepared long-term improvement plans base on a parcel-by-parcel build-out projection for the entire District. As needed, the treatment facility will be expanded to treat a flow of 60 mgd ADWF by the year 2035[14].

The District has already projected future development within Lafayette on a parcel-by-parcel basis using current zoning and General Plan land use designations. District projections are based on providing treatment and disposal to treat a minimum of 100 gallons per day per capita for residential development and 1,500 gallons per acre per day for non-residential uses. The District has adequate treatment and disposal capacity to meet projected growth in Lafayette through the late-1990s. The District's collection system and treatment master plans have identified the facilities' improvements needed to maintain service at or above this level for the future. These facilities are prioritized and scheduled for implementation in the District's Capital Improvement Budget and Ten-Year Capital Improvement Plan, which are updated annually.

Required upgrading of the wastewater collection system has likewise been identified, prioritized, and scheduled; the Districts' Waste Water Collection System Master Plan and later analyses re-evaluated the capacity and condition of all collectors exceeding 10 inches in diameter and some of the 6-inch and 8-inch collectors. Each year, the projects highest in priority are constructed.

Within the proposed Project Area, several existing sewer deficiencies have been identified where existing 6-inch diameter sewer mains should be upsized to 8-inch diameter: Lafayette Circle (Hough Avenue to Mt. Diablo Blvd.), Mt. Diablo Blvd. (Lafayette Circle - east to Moraga Road), Moraga Road (Mt. Diablo Blvd., to Plaza Drive), and Plaza Drive (Moraga Road to Golden Gate Way).[14]

The District has completed a capacity study for the sewer system downstream from the proposed Project Area. This study determined that the existing sewer system will be deficient during extreme rain events. Improvements to correct the deficiencies are in the District's Ten-Year Capital Improvement Plan. Improvements to the District's existing facilities that are required as a result of new development will be funded from applicable District fees and charges. The developer will be required to pay these fees and charges at the time of connection to the sewer system.[14]

Developers who seek to connect residential or non-residential developments to the public sewer system are required to adhere to the District's Standard Specifications for Design and Construction and pay all applicable fees and charges. The collection system

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[14] The Central Contra Costa Sanitary District response to the Notice of Preparation of an Environmental Impact Report for the Lafayette Redevelopment Project (see Appendix C), March 15, 1994.

is more than adequate for any small subdivisions. Projects that include more than 50 dwelling units require the District to conduct an analysis of the ability of all downstream collectors to absorb the increased flows.

Thresholds of Significance

The following significant threshold has been established by the AEP as a guideline for impacts to wastewater facilities:

- Significant impacts would occur if the project-related demand caused an increase in wastewater treatment that reached or exceeded the current capacity or caused a reduction in the level of service, thereby requiring expansion or development of new facilities.

B. Impacts

Long-term implementation of the proposed Plan would result in an increased demand upon the existing wastewater treatment facility. Assuming General Plan build-out, the Plan's long-term implementation could result in an increase of approximately 13,200 gallons per day (gpd) of additional wastewater being added to the treatment plant's existing flow. The total represents less than one percent of the current facilities' available capacity of 11.4 mgd. However, this increase will be incremental over the life of the 30-year Plan. Plan-related development could occur over the next 30 years which would coincide with the District's expansion of the treatment facility to 60 mgd by the year 2035. Thus, General Plan build-out of the proposed Project Area would represent one-tenth of one percent of the District's available capacity based upon the proposed expansion, therefore, no significant impacts to wastewater treatment facilities will occur. Furthermore, it is not anticipated that significant, Plan-related development projects will occur in the short-term future because adequate funding sources will not be available from the Agency to assist or promote development of those projects. This will allow adequate time for the potential expansion of a wastewater treatment facility if deemed necessary by treatment facility officials.

C. Mitigation Measures

No mitigation measures are recommended as conditions of Project approval.

To ensure that long-term growth does not significantly impact wastewater facilities, the following recommendation is presented for the decision-making body's consideration:

- All Plan-related growth inducing projects should be evaluated by Agency staff working with City staff on a project-by-project basis to determine their impact upon the wastewater treatment facility and infrastructure. No project should be approved unless the wastewater treatment facility and infrastructure are adequate to meet projected demand.

- Applicants for discretionary development should be encouraged to employ practices that reduce the quantities of wastes generated by employing applicable water conservation techniques cited in Section 2.8.1, Water Resources, and promote resource recovery.

### 2.8.3 Solid Waste

A. Existing Conditions

The City of Lafayette is within the Central Contra Costa Sanitary District (CCCSD). The CCCSD franchises solid waste for the City of Lafayette. As such, the City has delegated many of the responsibilities associated with solid waste management issues to the CCCSD.

It is estimated that the City of Lafayette generated 20,633 tons of solid waste in 1993[15] of which 16,194[13] tons were disposed of at landfills. This is a decrease from 1992 where 23,825[13] tons of solid waste was generated of which 20,787[13] tons were disposed of at landfills. To comply with the California Integrated Waste Management Act of 1989 (AB 939), the City has a "Source Reduction and Recycling Element" and a "Household Hazardous Waste Element". Development of these plans was overseen by the CCCSD. These Elements provide details of current and projected waste generation and how 25 percent of this waste stream can be diverted from landfills over the short term (prior to 1995, and 50% by the year 2000) per the requirements of the Integrated Waste Management Plan. The City, in conjunction with the CCCSD, is implementing the recommended recycling, composting, source reduction, special waste and public education programs, as defined within the Elements to comply with State Law. As of 1993, 21.5% of the solid waste generated in Lafayette was diverted away from the landfills and recycled which is an increase from 12.8% in 1992. Thus, the City is close to complying with AB 939, which requires a reduction of 25% of the solid waste to be diverted from the landfills and recycled by 1995.

Solid waste collected from Lafayette is transported to the Acme Landfill and Transfer Station located east of Martinez from where it is currently exported to Alameda or Solano County for disposal.

*Thresholds of Significance*

The following significant threshold has been established by the AEP as a general guideline for solid waste impacts. A project's impacts are considered to significantly impact solid waste facilities if:

- An increase in solid waste disposal would cause an accelerated need for additional waste disposal sites or expansion of existing landfill .

B. Impacts

The Plan's long-term implementation could ultimately result in the generation of additional solid waste that would have to be disposed of at county landfills.

Assuming General Plan build-out, the Plan's implementation could result in the generation of approximately .4 additional tons per day of compacted solid waste, assuming maximum build-out from year one of the Plan's life; this is equivalent to 136 tons per year (tpy).

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[15] Updated information provided by the Contra Costa County Sanitary District, April 6, 1994.

Assuming the scenario just presented, the increase of additional solid waste generated as a result of the Plan's long-term implementation is less than 1 percent of the total waste presently being collected in the City of Lafayette. However, it must be stressed that build-out could occur over the 30-year life of the Plan. Therefore, it is appropriate to calculate increased consumption on an average yearly basis over the 30-year life of the proposed Plan. As such, the increase in solid waste generation over existing use is 4.5 tons per year. This would represent an approximate increase of two-hundredths of one percent over existing City-wide yearly generation.

Constraints on the availability of landfill capacity are such that increases in solid waste generation should be considered a regionally significant impact. However, due to the minimal increase in solid waste generation and the implementation of the SRRE which will ensure that the City reduces solid waste generation in accordance with the State requirements under AB 939 there will be no significant impacts to solid waste facilities as a direct result of the proposed Plan.

C. Mitigation Measures

No mitigation measures are recommended as conditions of project approval.

### 2.8.4 Police Protection

A. Existing Conditions

Police protection for the City of Lafayette is provided by the Contra Costa Sheriff's Department under contract with the City. The City is currently contracted for 14.5 officers and one part-time clerical person. Relief officers and detective services are provided by the Sheriff's Department. The City is divided into two patrol beats, north and south of Mt. Diablo Boulevard. There is a minimum of two patrols on duty at any one time.

Response time for emergency calls which are usually traffic-related or calls from the commercial core area which is part of the proposed Project Area is generally within 2-3 minutes. Average response time for priority actions for the City as a whole averages 5-7 minutes. The major areas of concern for the police are traffic-related incidents and burglary. The traffic incidents are due, in large part, to traffic coming from or going to destinations outside Lafayette.

The City has a very low police to population ratio. When one considers a typical ratio of 1.5 officers to 1,000 population, the City should have 34-36 officers. The neighboring city of Pleasant Hill has 46 officers for a population of about 30,000 people. Despite this low staffing ratio, the Police Chief believes the City is provided with adequate police protection though demands for police response could be decreased if the City had someone available to answer emergency calls for services that are not directly police matters.

*Thresholds of Significance*

The following significant threshold has been established by the AEP as a general guideline for police protection:

- A potentially significant impact may be identified when a development will cause the response time for services to increase.

B. Impacts

Future growth occurring within the proposed Project Area, facilitated by the Project's implementation, could ultimately impact the present level of police protection services. The increased demand for services caused by population and employment increases could necessitate future expansion of police facilities and services.

Based upon build-out of the proposed Project Area the proposed Plan's long-term implementation could result in the addition of approximately 132 residents at build-out. Thus, using the ideal ratio of 1.5 officers per 1,000 people, build-out within the proposed Project Area could require one (1) additional officer to be added to the Sheriff's Department over the long-term. However, if the Level of Service remains the same during Plan implementation then additional police officers may not be necessary. If the Level of Service decreases (i.e., response times are 6 minutes instead of 2-3 minutes) then additional officers would be needed to achieve adequate response times; therefore, the impacts to police protection as a result of Plan implementation are considered potentially significant. The actual impact of criminal activity generated by related projects cannot be determined at this time but should be reviewed on a specific project-by-project basis.

C. Mitigation Measures

The following mitigation measures are recommended as conditions of Project approval:

1. All proposals shall be reviewed on a project-by-project basis by the Lead Agency in conjunction with the Contra Costa Sheriff's Department to determine the need for specific project environmental impact analysis.

2. In the event an analysis is deemed necessary, and said analysis shows evidence of significant negative impact to existing police services-facilities, appropriate mitigations shall be incorporated into the project(s) by the project proponent prior to project(s) approval.

D. Level of Significance After Mitigation

Insignificant

## 2.8.5 Fire Protection

### A. Existing Conditions

Fire protection for Lafayette is provided by the Contra Costa County Fire Protection District. This is a County fire protection district governed by the County Board of Supervisors. The district provides fire protection for 355,000 people living within the 185 square mile district. The District operated 19 fire stations with 294 full-time personnel and 78 reserve firefighters. The District maintains three stations in Lafayette (Stations 15, 16, and 17). First response to a fire or emergency medical situation in Lafayette comes from one of these three stations. For a minor call or medical call, the District sends out one engine. For structure fires in residences, it sends three engines and a battalion chief, and for a commercial fire it sends out two engines, a truck, and a fire chief. In these latter cases, some of the equipment and manpower may come from stations outside Lafayette. Stations in Orinda, Moraga, Pleasant Hill, and Walnut Creek provide second response.

Each station in Lafayette is manned by three full-time firefighters. The District attempts to provide a three minute response time within Lafayette. However, the distance to certain residential areas and poor access make this goal unrealistic. Response to remote residences located outside the proposed Project Area at the end of narrow roads can be as long as 7-10+ minutes.

The District currently has adequate manpower and equipment to serve Lafayette for emergency medical and fires other than wildfires. With additional development and an increase in calls, it may be necessary to add equipment or manpower. Fire District expansion as well as ongoing costs are funded through a special district augmentation fun (through the County). The County Fire Chiefs' Association annually reviews requests for funding and presents the County Board of Supervisors with requests for their approval.

Fire District staff indicated three areas of primary concern as regards fire protection in Lafayette. First, many residences are located in areas with poor access. Secondly, there are areas where there is inadequate fireflow (i.e., the amount of water delivered to a hydrant). The District considers hydrants with under 1,000 gallons per minute (gpm) with a residual pressure of 20 pounds per square inch (PSI) to have inadequate fireflow. The District has prepared a list of inadequate hydrants for Lafayette; there are currently 132 inadequate hydrants in the City. The third main area of concern includes the threat of exterior fires or wildland fires. For the most part, only the inadequate fireflows would impact the proposed Project Area.

*Thresholds of Significance*

The following significant threshold has been established by the AEP as a general guideline for fire protection services:

- A potentially significant impact may be identified when a development will cause the response times for these services to increase. Each department is responsible for determining if a specific project will increase response times for their service.

B. Impacts

Future growth occurring within the proposed Project Area, facilitated by the Project's implementation, could ultimately impact the present level of fire protection services. The increased demand for services caused by population and employment increases could necessitate future expansion of fire facilities and services. However, the elimination of blighting influences and/or vacant or previously urbanized land will decrease certain types of fire risks such as brush fires due to neglected vegetation.

Assuming an ideal ratio of 1.5 firefighters per 1,000 residents, implementation of the Project could ultimately generate the need for one (1) additional firefighter. However, future demand for additional fire department personnel is based upon Level of Service (LOS) and response times. If the Level of Service decreases (i.e., response times are 6 minutes instead of 3 minutes) then additional firefighters and facilities would be needed to achieve adequate response times; therefore, the impacts to fire protection as a result of Plan implementation are considered potentially significant.

Various circulation and infrastructural improvement projects proposed as part of the Project's long-term implementation will help to improve fire truck response times and general department effectiveness.

C. Mitigation Measures

The following mitigation measures are a condition of Project approval:

1. All growth inducing Projects shall be reviewed on a project-by-project basis by the Lead Agency in conjunction with fire department officials to determine the need for specific project environmental impact analysis.

2. In the event an analysis is conducted and said analysis shows evidence of significant negative impact to existing fire services/facilities, such that existing levels of service and emergency response times deteriorate beyond acceptable levels, the Project proponent shall work with Agency/City staff to develop appropriate mitigation measures which shall be incorporated into the project(s) prior to the project(s) approval.

While not recommended as conditions of Project approval the following recommendation is presented as an example for the decision making body's consideration:

- There is a need to address inadequate fireflow and access problems. New construction should not be allowed without adequate fireflow and access.

D. Level of Significance After Mitigation

Insignificant

## 2.8.6 Schools

A. Existing Conditions

Elementary Schools

Public schooling for Lafayette students from kindergarten through eighth grade is provided by the Lafayette School District. The District operates five schools: Happy Valley Elementary, Lafayette Elementary, Springhill Elementary, Burton Valley Elementary, and Stanley Intermediate. The first four elementary schools currently house students from grades K-5 with Stanley Intermediate housing students in grades 6-8.

District enrollment has been growing at a rate of 2 to 3 percent per year over the past five years; this is the equivalent of new students requiring about four new classrooms per year. Currently, the schools are within 50 to 100 students of building capacity. The history of the District enrollment and future projections are shown as follows:

| YEAR | ENROLLMENT |
|---|---|
| 1986 | 2,398 |
| 1987 | 2,447 |
| 1988 | 2,638 |
| 1989 | 2,757 |
| 1990 | 2,780 |
| 1991 | 2,905 |
| 1992 | 2,954 |
| 1993 | 3,040 |
| 1994 | 3,076 |
| 1995 | 3,161 |

Source: Lafayette School District

Unlike many schools in northern California, the schools of the Lafayette School District are not crowded with portable or relocatable units, although several schools do contain modular units which are similar to permanent classrooms. The number of modular and portable classrooms on each campus include: Springhill--five modular classrooms, Happy Valley--three modular and two portable classrooms, Lafayette--two modular and one portable, Stanley--three portables (two of these will be eliminated when the new additions are complete), and Burton Valley has no portable or modular units.

The District receives Developer Mitigation Fees for new construction in Lafayette. These fees, authorized by the State, are authorized to construct new facilities or lease or purchase portable classrooms to offset fiscal impacts on school Districts as a result of new residential development and the consequent generation of additional students. The District currently receives $1.62 per square foot of all new residential construction and .25¢ per square foot for new commercial development.

The District also owns two schools that are currently not used for public education. Montecito School is currently leased for private uses as a day care facility and a private School. Vallecito School is currently leased for a day care facility.

### High School

Public high school education for Lafayette is provided by the Acalanes Union High School District. The District operates five high schools, two of which serve the Lafayette area. Most high School students living in Lafayette attend Acalanes High School while students living at the very south end of the City attend Campolindo High School in Moraga.

The enrollment history and District projections for future enrollment are shown below:

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acalanes | 1358 | 1274 | 1137 | 1060 | 1031 | 1028 | 1060 | 1045 | 1095 | 1110 | 1140 |
| Campolindo | 1202 | 1117 | 999 | 950 | 917 | 920 | 955 | 960 | 1010 | 955 | 980 |

Acalanes High School has a capacity of 1,545 students and Campolindo High School has a capacity of 1,880 students. As can be seen, the two high Schools currently have considerable excess capacity. Total District student population for 1992 is 4,150 students. The District is currently proceeding with a $34,000,000 renovation project, and upon its completion should have an overall capacity of about 6,000 students, or about 50 percent more capacity than current enrollment. Even with projected growth through the next five years, the District would still be at 75 percent capacity. The District has noted that one large development within the District could skew enrollment projections, perhaps requiring readjustment of School boundaries to insure that all high schools continue to function below capacity.

The District currently does not collect developer mitigation fees. The entire developer mitigation fee in Lafayette goes to the Lafayette School District.

### Community College District

The Contra Costa Community College District (CCCCD) operates the Diablo Valley College located at 321 Golf Club Road in Pleasant Hill. According to District officials, the current enrollment (Spring Semester 1994) is 19,901[16] students. Based upon the low generation factors per household within the District and the limited amount of development as part of the General Plan build-out scenario (Table 1) it is anticipated that no significant impacts to the CCCCD will occur as part of Plan implementation.

*Thresholds of Significance*

The following significant thresholds have been established by the AEP as a general guidelines for school services:

- A potentially significant impact is identified when the capacity of the affected school district is exceeded, and any additional students would exacerbate the problem.

- If a school district has an existing overcrowding condition, and mitigation cannot remedy the condition, then the project has a significant unmitigable impact.

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[16] Based upon information provided by the Contra Costa Community College District, April 1994.

- Impacts to schools are considered significant if the available educational facilities are inadequate to serve the school-age population generated by the project.

B. Impacts

Based upon General Plan build-out,the proposed Project could contribute to long-term impacts which will affect servicing districts. Long-term Project implementation could result in the following increases in housing and population statistics:

| | |
|---|---|
| Housing: | 157 dwelling units |
| Population: | 132 people |

Based on the school age children (5-17 years of age) per household factor of .44, 69 new students would be added to City schools over the 30-year life of the proposed Plan. This is equal to approximately 2 new students per year for the life of the proposed Plan. The impact of 2 new students per year is insignificant when considering the capacity level of the existing schools as described in the existing conditions. Furthermore, it is not anticipated that significant Plan-related development projects will occur in the short-term future because adequate funding sources will not be available from the Agency to assist or promote development of those projects.

Project related growth is an impact related to the long-term implementation of the General Plan. As such, this growth should be viewed in conjunction with City-wide growth and the ability of the affected District to service a "build-out" condition permissible within the General Plan.

The State of California indirectly reimburses school districts for tax revenues lost as a result of tax increment financing. This is caused by the average daily attendance formulas of the State, and the Serrano vs. Priest decision. Furthermore, pursuant to State Assembly Bills AB2926 and AB1929, school districts may levy fees up to $1.65 per square foot for new residential construction and $.28 per square foot for new commercial and industrial construction. These fees are made available to school districts for, among other things, the development of additional classroom space and the renovation of existing school facilities.

C. Mitigation Measures

No mitigation measures are recommended as conditions of Project approval.

## 2.8.7 Parks and Recreation

### A. Existing Conditions

The City owns five properties that are currently used or proposed for use as parks. These are listed below:

| Site | Current Facilities | Size |
|---|---|---|
| Plaza Park | No recreational facilities | 20,000 sq. ft. |
| Brook Street Park | Children's play equipment and picnic facilities | 8,000 sq. ft. |
| Lafayette Community Park | Community Center with adjacent children's play equipment | 68 acres |
| 711 St. Mary's Road | Two Little League baseball fields | 11 acres |
| ~~Olympic Blvd. Site (Christiansen site)~~ | ~~No facilities; sale is pending~~ | ~~7.5 acres~~ |

The City operates and maintain the Plaza Park, the Brook Street neighborhood park, and the Community Center on the Lafayette Community Park. The Little League petitioned the City to lease the 711 St. Mary's Road site; however, that petition was denied. ~~There are no current plans for improvements on the Christiansen site.~~

A Master Plan for improving the Lafayette Community Park was prepared in 1988. This Plan recommended development including two softball fields, one Little League field, one full-sized soccer field, two to three undersized soccer fields, two group picnic areas, 20 family picnic areas, one play lawn, eight acres of turf for informal play, and attendant parking and other facilities. A Landscape and Lighting Assessment District was proposed to finance the recommended improvements to this park. The recommended Assessment District and the consequent fiscal impact on residents were controversial, and the District was not approved. The City has appointed a Blue Ribbon Commission to investigate residents' recreational needs, means of financing improvements, and general recommendations for the parks. The Commission was recently authorized to hire a consultant to poll Lafayette residents on these matters. At this time, the park is open for passive, unorganized use. The City does operate numerous recreational programs out of the Community Center, and there is a tot lot adjacent to the center.

The Olympic Boulevard (Christiansen) site is currently unimproved. It is located between Olympic Boulevard and Andreasen Drive, just west of Pleasant Hill Road. There have been past proposals that the City should sell this property to use the money to finance improvements to the Lafayette Community Park. Additionally, the Little League has requested that it be allowed to lease property and develop Little League fields on the site. At this time, no decisions have been made regarding this property.

*Other Public Facilities*

The public has access to playfields and equipment at the several public schools in the area; the six public and two private schools in the City provide 12 soccer fields and 14 softball fields. In addition, there are picnic and play facilities and an amphitheater at the Lafayette Reservoir Park which is operated by the East Bay Municipal Utility District (EBMUD). This large park located in west Lafayette provides a trail system and

open space for local residents. Bordering Lafayette on its northwest side is the Briones Regional Park operated by the East Bay Regional Park District (EBRPD). The area nearest Lafayette contains mainly open space and hiking trails. Further to the west, camping, archery, fishing, and hiking are available. Just to the southeast of Lafayette is the Las Trampas Regional Wildness, also operated by the EBRPD. This wilder area provides hiking opportunities.

In total, the City owns about 87 acres of park or potential park lands. Very little of this acreage has been developed to meet more than passive recreational needs. Additional recreational opportunities are provided by the Lafayette Reservoir Park, adjacent regional parks, and school facilities.

*Trails*

The City is blessed with an excellent trail system which connects Las Trampas Wilderness with Briones Regional Park. The City has a Master Trails Plan in its current General Plan which was amended by Resolution No. 41-83.

The major trail in the City is the Lafayette-Moraga Regional Trail which is maintained by the EBRPD. This trail enters the southern end of Lafayette from Moraga and extends to the Lafayette Ridge Trail on Briones Regional Park. EBRPD's Trail Map includes plans to extend the Lafayette Ridge Trail to the east with ultimate connections to Mt. Diablo and Martinez. This trail has not been developed. There is an extensive trail system on the Lafayette Reservoir Park; these trails are maintained by EBMUD. The Walter Costa Trail (actually this trail is mainly streets and driveways) connects the Lafayette Reservoir trail system to the Lafayette Ridge Trail. City-owned trails include the Rose Lane Trail, the Springhill Valley Trail, the Silver Springs Loop, the Walter Costa Trail, and the western end of the Lafayette-Moraga Ridge Trail. Proposed trails will link the Lafayette Reservoir trail system with the Lafayette-Moraga Regional Trail, provide neighborhood links and accessibility to several of the major trails, and provide neighborhood links and accessibility to several of the major trails, and provide new major trails in the Burton Ridge area (including extensions to Las Tramps Wilderness) and in the Reliez Valley area.

*Bikeways*

The City's Master Trail Map includes two bikeways, both of which have been completed (i.e. bike lanes along the road). These include a section along Moraga Road south of Mt. Diablo Boulevard and a major loop connecting the Lafayette-Moraga Regional Trail trailhead on Olympic Boulevard (just west of Pleasant Hill Road) with Acalanes High School and the BART station. In addition, bikes are allowed on the Lafayette-Moraga Regional Trail.

The City General Plan includes a Bikeway Plan. The Plan includes a description and map of existing and proposed bike paths (Class I Bikeways), bike lanes (Class II Bikeways). As of 1992, over 90 percent of the bikeways identified in the General Plan have been completed.

*Thresholds of Significance*

The following significant thresholds have been established by the AEP as a general guideline for parks and recreation:

- Neighborhood Parks and Facilities should serve a resident population of between 3,500 and 5,000 within an approximate one-half mile radius.

- A standard of five acres of local parkland per 1,000 population should be maintained.

B. Impacts

As is the case with other public services, new housing, commercial, and industrial development within the proposed Project Area will contribute to existing demands for enhancement of public park and recreation facilities. Assuming General Plan build-out, the Plan's adoption could result in the addition of approximately 388 new residents in the proposed Project Area. In terms of the City standard of five acres of park per 1,000 residents, the population increase could generate a need for approximately 1 acres of additional parkland. However, it should be emphasized that build-out is likely to occur (or may never occur) over the life of the 30-year Plan. Therefore, if development is averaged over the life of the Plan the amount of additional parkland needed is .02 acres per year. ~~While there is currently a shortfall of 31 acres of parkland within the City, it should be stressed that this shortfall does not include the Lafayette Reservoir and Briones Regional Park which are operated by EBMUD. If these parks were included in the park acreage for the City, then the City would easily meet the standards.~~ However, due to the location of the Lafayette Reservior and Briones Regional Park ~~se regional parks~~ to the City and the recreational amenities that exist, there is adequate park and recreation facilities for the residents of the proposed Project Area and for the City of Lafayette as a whole; therefore, no impacts are anticipated to park and recreation facilities as a result of Plan implementation. Furthermore, no impacts are anticipated to existing and proposed trails and bikeways due to the existing degree of urbanization of the areas within the proposed Project Area that are adjacent to or near City trails and bikeways.

C. Mitigation Measures

No mitigation measures are recommended as a condition of Project approval:

The following recommendations are presented for the decision making body's consideration:

- Programs should be established creating public-private partnerships for the financing of increased staff, equipment and/or supervision where park space is difficult to acquire.

- Park development impact fees should be required as a condition of granting building permits for construction where the underlying property has been previously subdivided.

## 2.8.8 Flood Control/Drainage

A. Existing Conditions

Lafayette is drained by a series of creeks. The major creeks in the City include Lafayette, Las Trampas, Reliez, Grizzly, and Happy Valley Creeks. Most of Lafayette, including the proposed Project Area, eventually drains to Las Trampas Creek which routes runoffs east to Walnut Creek.

*Flooding*

Areas adjacent to major creeks in Lafayette are subject to flooding during the 100-year storm (i.e., the storm that will happen once every 100 years). This includes the area in the southern portion of the proposed Project Area along the Lafayette Creek.

Structures within this flood plain can expect flooding during this peak storm event. The City's Zoning Ordinance includes a chapter on Flood Damage Protection. This chapter regulates the types of construction and required structure elevations within this flood zone.

According to Contra Costa County Flood Control and Water Conservation District (CCCFCWCD) officials, the most significant flooding problems exist on Las Trampas Creek. The CCCFCWCD is an advisory agency as regards to drainage and flood control within Lafayette. The District noted that while it can comment on environmental assessments of proposed projects sent to it by the City, its recommendations are not mandatory. Nevertheless, the District concurs with the City Engineer that there are areas of existing flooding problems, problems that will be exacerbated by any future development in the City. The District has no current plans for conducting any area-wide drainage projects in Lafayette.

*Creekbank Slope Stability*

A number of the major creeks have experienced significant downcutting of the streambed. This has resulted in steep and frequently unstable slopes. During heavy rains or when streamflows are high, these banks become saturated and may slide into the stream. This results in the loss of property, potentially damaging damming of the stream channel, and sedimentation of the aquatic environment.

To guard against property loss, the City has adopted "Creek Setback Requirements." This Ordinance (No. 334) requires setbacks from the creek, the amount of setback depending on the depth of the channel (twice the channel depth plus a Top of the Bank setback where channel depths are 21 feet or less; three times the depth for channels deeper than 21 feet). There are significant slope stability problems on several local streams. With the proposed Project Area, portions of Lafayette Creek, especially just east of the Lafayette Reservoir site, have significant bank slippage and erosion problems.

Creekbank protection in Lafayette is the responsibility of the adjacent property owner over whose property the creek passes. The City does not take responsibility for drainage or creekbank problems except as regards protection of certain bridges, areas that are owned by the City, and street drainage outfalls. Occasionally, the City is required to conduct work on private property to repair problems in the area for which they are responsible. This can be problematic as the City often does not have access

rights to the portions of streams where problems are located.

*Dam Failure*

Inundation maps showing what areas would be flooded if the dam at the Lafayette Reservoir failed have been prepared by EBMUD. This map is shown on Figure 10. Most of the proposed Project Area south of Mt. Diablo would be affected by dam failure at the Lafayette Reservoir. It is the opinion of EBMUD that such dam failure is most unlikely, but if it did occur there would be major property damage and threat to life.

*Thresholds of Significance*

The following significant thresholds have been established by the AEP as a guideline for flood control/drainage impacts:

- If the proposed Project causes substantial flooding, erosion or siltation;
- If the proposed Project exposes people or structures to major hydrological hazards such as flooding;
- If the proposed Project encourages activities that use water in a wasteful manner.

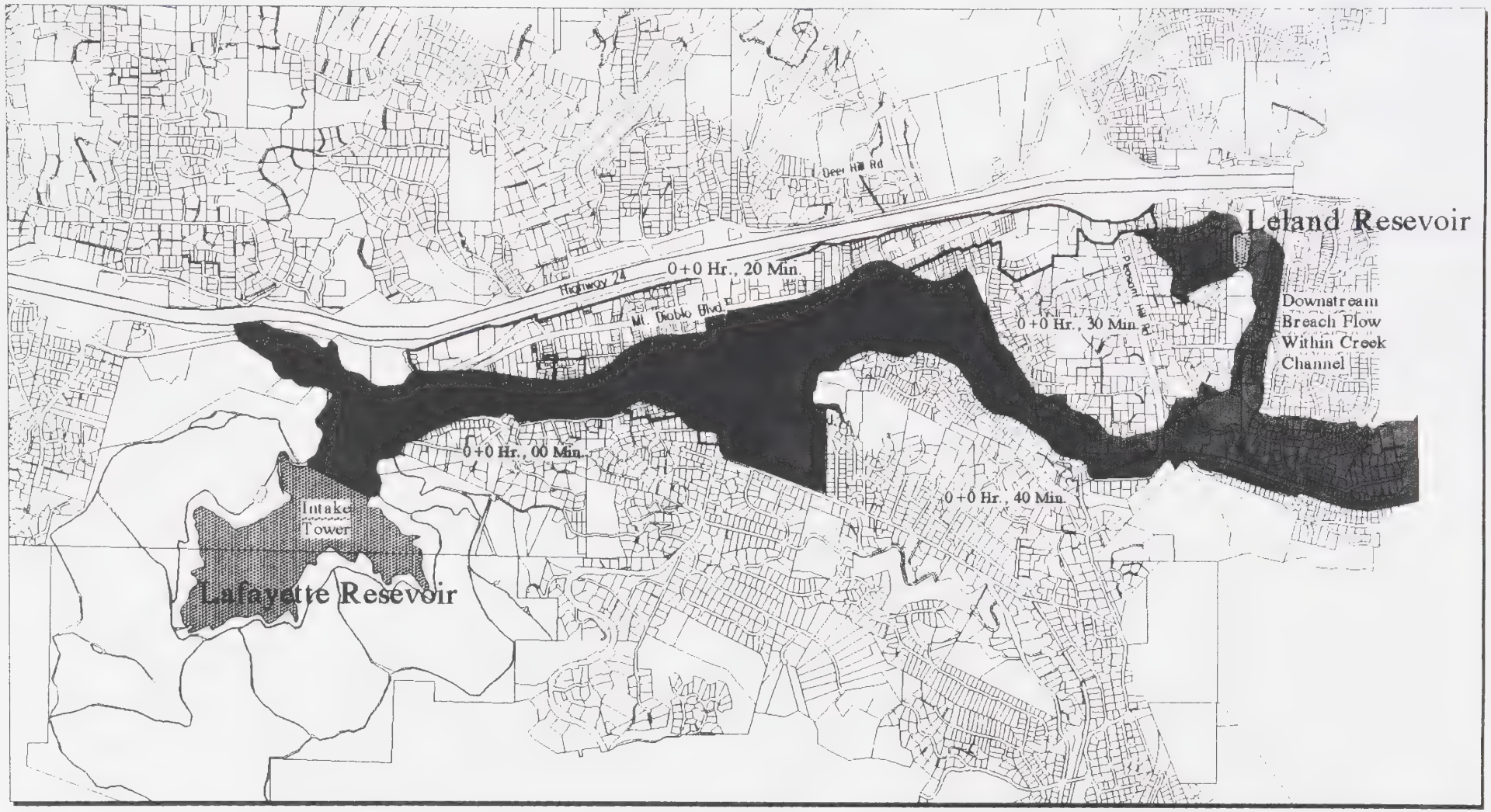
B. Impacts

Since the majority of the proposed Project Area is currently urbanized, implementation of the proposed Plan, in accordance with the Lafayette General Plan, would have a minimal increase in the amount of surface flow generated in the City. Increased surface flow could exacerbate flood conditions, and degrade water resources. At build-out, approximately 170.4 acres of commercial and 70.8 acres of residential land of the 294 acre proposed Project Area would be urbanized. The generation of storm water runoff is dependent upon the percent of impervious area; that is, the percentage of total study area covered by asphalt parking areas and building areas. Commercial areas are anticipated to have a coverage of impervious area of 80 to 90 percent, while multi-family residential may vary in the range of 45 to 90 percent, and single-family residential from 10 to 55 percent, dependent upon lot size.

Future development of Lafayette would introduce contaminates into stormwater runoff. These constituents include oils and grease, solvents, fertilizers, insecticides, and other chemicals which are easily mobilized by surface water runoff.

It is not possible to predict expected water quality changes with accuracy because of the inherent variability in urban runoff characteristics and generally poor reference data on this topic.

The general categories of pollutants and types of impacts expected from runoff generated by development are reviewed below:




Source: Lafayette General Plan Data Base (1992)
Urban Futures, Inc. (Revised August 1994)

LEGEND

- Proposed Project Area
- Dam Inundation Area
- Resevoir

# Lafayette Redevelopment Project

## Potential Dam Inundation Map

Prepared By:
Urban Futures, Inc.
3111 N. Tustin Ave., Ste. 230
Orange, CA 92665

N

Not to Scale

Figure 10

*Solids, Nutrients and Organic Matter*

Suspended solids, nutrients (nitrogen and phosphorous), and oxygen-demanding substances are commonly present in urban runoff in significant concentrations, and all would be associated with Lafayette.

1. Suspended Solids. Concentrations in urban runoff are fairly high in comparison with sewage treatment plant discharges, although the character of the suspended solids differs. Solids in urban runoff are more likely to be higher in mineral and man-made products and may also have other contaminants absorbed on to them.

2. Nutrients. Nitrogen and phosphorous are generally present in urban runoff; however, concentrations are not usually high in comparison with other possible discharges to receiving water bodies (e.g., sewage treatment plants and agricultural runoff).

3. Oxygen-Demanding Substances. Organic matter, as measured by $BOD_5$ (biochemical oxygen demand after five days), is present in urban runoff at concentrations approximating those in secondary treatment plant discharges. This could pose special concerns with respect to dissolved oxygen levels in the receiving waters (e.g., Las Trampas Creek and Lafayette Creek) if adequate dilution is not provided for.

4. Heavy Metals. Heavy metals (especially copper, lead, and zinc) are by far the most prevalent priority pollutants found in urban runoff. End-of-pipe concentrations commonly exceed water quality criteria (e.g. freshwater acute and chronic toxicity levels) and drinking water standards. For the future development in Lafayette, heavy metals are not expected from heavily trafficked urban areas.

5. Hydrocarbons. Hydrocarbons in urban runoff can originate from accidental spills or deliberate dumping of lubricating oils or fuel oils; from emissions of engines during normal operations, such as vehicle exhaust particulate or drippings of crankcase oil; from rainout of atmospheric particulate; from spilling of crude or refined petroleum products; from leached or eroded pavement; from natural seepage on land; or from natural biogenic sources. The predominant contributor to oil and grease in urban runoff is most likely automotive crankcase oil, a refined distillate petroleum product. This is a potential concern in future residential development in Lafayette.

6. Pesticides and Trace Organics. The presence in typical urban runoff of pesticides and other trace organic pollutants is very site specific. Major nationwide urban runoff monitoring efforts have revealed 63 of 106 priority organic pollutants in detectable quantities. Water quality standards tend to be exceeded for pesticides less frequently than for heavy metals in typical urban runoff. There are only rare instances of exceedance of freshwater acute to city levels for pesticide and trace organic constituents.

7. Bacteria. Coliform bacteria are present at high levels in urban runoff, and can usually be expected to exceed water quality standards for contact recreation during and immediately after storm events. Bacteria concentrations may be as much as two orders of magnitude higher than those naturally occurring in small

rural streams, but for urban streams the increase would be much less apparent.

The EPA has required Contra Costa County to develop a plan of action to reduce pollution of area streams. To meet the requirements of the Non-Point Pollution Act, the City, 17 other cities in the County, the County, and the CCC Flood Control District have prepared a report that describes existing drainage characteristics and water quality, describes proposed actions to reduce pollution, and details what measures the City will need to take to reduce water quality pollution to a level acceptable to the EPA.

Grading, excavation, and construction activities occurring with new development under the proposed Plan, in accordance with the City's General Plan, have the potential to increase erosion of soil and deposition of particles in drainage ways. During future Plan-related construction, runoff from disturbed areas would likely contain silt and debris, resulting in short-term increases in the sediment load of Lafayette and Las Trampas Creeks, their tributaries, and the drainage systems serving the City. This re-deposition of eroded material could create turbidity (endangering aquatic life), reduce wildlife habitat, and reduce the water-carrying capacity of the streams and drainage ways, thereby potentially aggravating flood conditions. The significance of this impact would vary depending upon the level of construction activity, weather conditions, soil conditions, and the increased sedimentation of drainage systems within the area.

Construction of residential housing in the proposed Project Area could expose more people to safety hazards and property damage associated with flooding. Many portions of the proposed Project area are located in 100-year flood zones. These areas are located primarily along Lafayette Creek within the Corridor Area.

C. Mitigation Measures

The following mitigation measures are recommended as conditions of Project approval:

1. All Plan-related, growth-inducing projects shall be evaluated by Agency staff working with City staff on a project-by-project basis to determine their impact on flood control/drainage and water quality. No project shall be approved unless there is adequate on-site drainage and no significant impacts to water quality.

While not recommended as a condition of Project approval, the following recommendations are presented for the decision-making body's consideration to further reduce potential flood impacts to proposed Project Area people and structures:

- All building structures should be protected against a 100-year flood.
- At least one route of ingress and egress to the development should be available during a 100-year flood.
- The foundation designs for all structures should be based on detailed soils and engineering studies.
- Grading should be limited to dry months to minimize problems associated with sediment transport during construction.

Level of Significance After Mitigation

Insignificant

## 2.8.9 Utilities

A. Existing Conditions

All electricity and natural gas is provided to the City of Lafayette by the Pacific Gas and Electric Company (PG&E).

*Thresholds of Significance*

The following significant threshold has been established as a guideline for public utilities:

- The proposed Project will have significant impacts if there is a need for new systems, or if there are substantial alterations to the power utilities.

B. Impacts

Implementation of the proposed Project will have an indirect impact on the increase of energy consumption throughout the City. As redevelopment, rehabilitation and public improvement projects are undertaken, in accordance with the proposed Plan, a spin-off effect will be created that establishes adequate economic motivations/opportunities for the development of unimproved properties and upgrading of existing development. Such stimulated growth, in accordance with the City's General Plan densities and land use designations, will result in the increased consumption of energy. While the exact requirements for future energy consumption throughout the proposed Project Area cannot be established at this time, PG&E based upon information within the Lafayette General Plan, has indicated that significant negative impacts will not occur as a result of the proposed Project.

Proposed improvement projects will not significantly affect the long-term availability of noted local/regional energy resources. Such projects include street improvements, storm drain projects, sewer and water projects, pedestrian and vehicular circulation projects, park and beautification improvements, and commercial and residential rehabilitation and development assistance programs.

C. Mitigation Measures

No mitigation measures are recommended as conditions of Project approval. However, to further insure the insignificance of Project related impacts upon proposed Project Area utility purveyors and to insure that energy conservation is practiced within the proposed Project Area, the Agency should consider the following measures:

Electrical Service

Developers in the proposed Project Area should coordinate with PG&E regarding the location and phasing of required on-site electrical facilities.

Proposed building construction should comply with Title 24 of the California Administrative Code.

On-site electrical lines should be installed underground.

Project planners and architects should consult with PG&E regarding current energy conservation techniques.

Project planners and architects should also consider the use of energy-efficient architecture and landscape design concepts which will work to reduce the long-term demands for fossil fuels. Such measures should include the following:

1. Architectural planning and design, to the extent feasible, should take full advantage of such concepts as natural heating and/or cooling through sun and wind exposure and solar energy collection system opportunities when practical; and,

2. Landscape design should be tailored, where feasible, to use the requirements of individual structures, with the intent to minimize heat gain in summer, maximize heat gain in winter, and promote air circulation for heating and cooling purposes.

Natural Gas

Natural gas service to the proposed Project Area should be in accordance with PG&E policies and extension rules as required. These are on file with the California Public Utilities Commission. In addition, the following general measures are recommended:

1. The thermal insulation installed in walls and ceilings should meet or exceed the standards established by the State of California.

2. All buildings should be constructed in conformance with Title 24, Part 6, Division T-20, Chapter 2 of the California Administrative Code.

3. Windowless walls for western exposures and sill orientation of buildings to use solar heating systems and efficient heating-cooling systems should be installed whenever feasible.

4. The use of landscaping to moderate building heat gain, such as the use of deciduous trees in parking areas and on the southern and western exposures of buildings to provide shade during the summer, yet allow maximum light and heat during the winter, should be encouraged.

5. Energy conservation methods that could be readily incorporated into a development should be conceived during the design phase of the project. Consultation with PG&E during the design phase will facilitate the process of adapting the project's architectural design to the maximum efficient energy use.

## 2.9 CULTURAL RESOURCES

The following section contains excerpts from the Lafayette General Plan Data Base as previously incorporated by reference.

A. Existing Conditions

The first known inhabitants of the Lafayette area were the Costonoan or Ohlone Indians. The political organization of the Ohlones has been described as an "ethnic group" rather than a tribe. In most cases, the ethnic groups were small in number and divided between several settlements.

The Ohlones occupied areas along permanent and seasonal drainages, flat ridges and terraces. Permanent villages were usually placed on elevations above seasonal flood levels. Small auxiliary settlements were frequently abandoned, newly founded, or reoccupied depending on local conditions. Surrounding areas were used for hunting and seed, acorn, and grass gathering. In most cases, a natural drainage area defined the territorial limits.

Catholic Franciscan priests, originating from Spain, set up six missions in Ohlone territory. The mission period ended in approximately 1834 and the damage to Ohlone life was irrevocable. Tribe after tribe were decimated by disease and death. The granting of a Mexican land grant (Acalanes Rancho) occurred in 1834 and the City of Lafayette was established in 1848. The early Anglo settlers of Lafayette constructed several buildings, a few of which survive today as reminders of Lafayette's historic past. A cluster of these historic structures, including the Third School House, is located in downtown Lafayette.

Numerous prehistoric archaeological sites have been identified along Lafayette's creeks, where foothills meet valleys and at vegetation ecotones. There is the possibility of unrecorded prehistoric cultural resources in the City of Lafayette.

Historically, there has been activity in the area since the granting of Rancho Acalanes and establishment of the City of Lafayette. Therefore, there is the possibility, in many areas, of historical cultural resources associated with the settlement and subsequent occupation of the Lafayette area.

The City Zoning Ordinance in Chapter 6-21 provides for the designation of historical landmarks within the City. Historic buildings can be nominated for such designation by the owner of the property or the Lafayette Historical Society. Nominations are reviewed, and those structures that meet the criteria set forth in Chapter 6-21 may be designated historical landmarks by the City Council. Once a structure is so designated, anyone owning, renting, or occupying the structure must procure a certificate of appropriateness from the City Council before making any environmental change to the property. Certificates are issued if the proposed changes will not adversely affect the significant historical or aesthetic features of the property and the changes are warranted as determined by the County building inspector, the fire department, or the County health department.

Five properties have been designated Historical Landmarks, all of which are within the proposed Project Area:

1. Plaza Park (bordered by Moraga Road, Golden Gate Way, and Plaza Way)

2. Way Side Inn (3521 Golden Gate Way; A.P. No. 243-222-018)

3. The former Pioneer Store (3535 Plaza Way; A.P. No. 243-222-020)

4. Town Hall (southeast corner of Moraga Road and School Street; A.P. No. 234-042-010)

5. A portion of Lafayette United Methodist Church (955 Moraga Road - known as Old Lafayette Grammar School)

The *Guide to Historical Lafayette* includes an additional ten properties with historic significance.

Thresholds of Significance

In accordance with Appendix K of the CEQA Guidelines, a project will have a significant impact on the cultural resources if it:

- Disrupts, alters, or adversely affects a prehistoric archaeological site or a property of historic or cultural significance to a community or ethnic or social group;
- Results in direct adverse impacts (e.g., ground-disturbance and construction activities) or indirect adverse impacts to cultural resources (e.g., vandalism, increased erosion, or vibration during heavy grading);
- Results in adverse effects to a prehistoric building, structure, or object;
- Affects a landmark of local cultural or historical importance; or
- Restricts existing religious or sacred uses within the potential impact area.

B. Impacts

Implementation of the Plan could impact existing historical resources that are located within the proposed Project Area. Impacts could ultimately result from, 1) demolition, 2) removal from the existing site, and/or 3) structural modification of buildings that could have historical significance. These impacts will be mitigated to a level of insignificance by the measures contained in C. Mitigation Measures.

The degree of impact to unknown archaeological resources cannot be determined as this time. Future assessment of impacts upon potential proposed Project Area cultural resources will have to be evaluated at a future time, on a project-by-project basis, after project specifics such as location, type of development, densities, etc., are known to the Lead Agency. However, due to the existing degree of urbanization within the proposed Project Area impacts to archaeological resources are expected to be insignificant.

C. Mitigation Measures

The following mitigation measures are recommended as conditions as Project approval and shall apply in the event significant cultural resources are found during implementation of the Plan related projects.

1. In the event presently unknown archaeological or historical resources are discovered during development of specific projects, work shall be terminated until such time that a certified archaeological/historical consultant can investigate the findings. In such a case, the investigating archaeologist/historian shall determine appropriate future actions that must be taken prior to continuation of all affected project(s).

2. All structures and properties involved in rehabilitation/development activities shall be evaluated for historic significance in accordance with the historic resources guidelines set forth in the City Zoning Ordinance (Chapter 6-21).

3. The existing condition of all historic structures that are approved for demolition, removal from existing site and/or modification shall be documented with photographs and written descriptions prior to commencement of the approved action.

Level of Significance After Mitigation

Insignificant

# 3.0

# ALTERNATIVES TO THE PROPOSED PROJECT

## 3.0 ALTERNATIVES TO THE PROPOSED PROJECT

### 3.1 No Project

The no project alternative would, for an indeterminable period of time, prevent many of the potential side effects that could be generated from proposed redevelopment projects, such as incremental traffic increases, noise generated, increased air contaminants, public safety liabilities, and increased water consumption and wastewater generations.

This alternative would require, 1) that the redevelopment action initiated by the Redevelopment Agency and 2) that the long-term growth, as outlined in the General Plan, be terminated. Without redevelopment authority and financial mechanisms, the adverse conditions in the proposed Project Area may increase, thereby, further contributing to a continuing decline of the area, as well as negatively affecting physical and economic conditions in surrounding areas.

The Agency, as part of its broader purpose, proposes to alleviate existing conditions of deficiency, primarily by alleviating public utility infrastructure and public facilities deficiencies. Long-term Agency actions are expected to encourage and promote the rehabilitation, and development of permitted land uses and ancillary activities within the proposed Project Area and its environs.

Under the "no project" scenario, the proposed Project Area will continue to experience negative impacts related to noise, geotechnical hazards, air pollution, and traffic congestion. Without the Project, the proposed Project Area will continue to be impacted by inadequate roadways, storm drain/flood control deficiencies, obsolete and underproductive commercial areas, that generally characterizes the entire proposed Project Area. Directly related to these impacts the "no project" alternative would virtually eliminate the Redevelopment Agency's ability to attain its goals and objectives as described under 1.0, Project Description, in this Report; the Agency would be disabled in its attempt to correct and mitigate conditions of blight within the proposed Project Area. The City would ultimately be constrained in its ability to implement many of the goals and objectives of its General Plan.

While the long-term implementation of the Project is generally seen as a positive action, its implementation will affect environmental change. Conversely, the selection of the no project alternative would prevent the occurrence of Project related environmental change thereby resulting in a reduction of the following Project related impacts:

- Approximately 18,386 additional average daily trips;
- Consumption of approximately 23,892 additional gallons per day of water;
- Generation of an additional 13,200 additional gallons per day of wastewater;
- Generation of 136 additional tons of solid waste per year;
- Additional 2 students per year over the life of the Plan;
- Increase in short-term noise levels due to construction activities; and
- Decrease in air quality as the result of an increase in average daily trips and construction activities.

Naturally, since some growth will occur regardless of whether the Project is adopted and implemented, a full realization of this reduction would not be achieved under this alternative. Such a reduction would represent an equivalent reduction of impact upon noise generated, increased air contaminants and water consumption as previously discussed earlier in this EIR.

The positive impacts of the no project alternative would be that less physical impact on the environment, caused by new and intensified land uses and ancillary activities, would likely

occur because of a continued slower rate of growth caused by existing limits to infrastructure capacity, a less viable local economy, and less activity in the rehabilitation and/or construction of existing undeveloped and/or underutilized residential and commercial parcels.

In the final analysis, the no project alternative is not environmentally superior to the proposed Project because the environmental benefits that will be realized from the Project, such as: (1) storm drainage and flood control improvements, (2) aesthetic improvements through the redevelopment of deteriorating structures and infrastructure, (3) public safety improvements, (4) creation of jobs through the expansion of commercial development, (5) historical preservation improvements, and (6) the provision of affordable housing and community facilities improvements, outweigh the environmental benefits that would be obtained by not approving the Project such as a slower increase in traffic generation, noise generation, air contaminant generation and water consumption.

## 3.2 Alternative Project Areas

The proposed Project Area was chosen by the Agency based on its analysis of existing conditions, characteristics and the need for effective redevelopment of the Area based upon the criteria established within the California Community Redevelopment Law. Following is a discussion of two specific alternative proposed Project Areas of varying size.

Alternative 1 - Extension of proposed Project Area Boundaries

An increase in the proposed Project Area's size caused by the inclusion of other areas of the City would be inappropriate. Agency consultants conducted a survey early in the Project's adoption process and determined that physical and economic conditions found in some adjacent areas of the City do not presently evidence the blighting conditions existing within the boundaries of the proposed Project Area; nor are they presently needed to permit the effective redevelopment of the proposed Project Area. The exclusion of other portions of the City is appropriate at this time in that the conditions predominating in these areas do not presently represent areas of immediate need requiring Agency assistance.

The areas excluded from the proposed Project Area represent, to a great degree, newer residential and commercial areas of the City, where infrastructure is less likely to require upgrading or replacement or where issues of land use compatibility, property neglect, obsolescence and economic disuse are not prevalent. Achievement of Agency goals would be less likely to occur if additional areas were added since the limited resources of the Agency could be expended on areas not presently in need of upgrading. The expenditure of resources on areas that have been reviewed and found to be presently inappropriate for inclusion in a redevelopment project area, would be environmentally unsound because monies and resources could be diverted to those areas that are not truly in need of significant upgrading to the detriment of those that are.

In the final analysis an extension of proposed Project Area boundaries is not environmentally superior to the proposed Project because the environmental benefits of the proposed Project, such as the infrastructural improvements included in the Project Improvement List (Appendix A), might not be fully implemented if this alternative were selected. Additionally, this alternative is environmentally inferior to the proposed Project in that it could result in the unnecessary expenditure of resources within areas that are not presently in need of agency assistance, thereby, depriving those areas that are presently in need of upgrading, in accordance with State law.

An extension of proposed Project Area boundaries is inappropriate for the above cited reasons.

Alternative 2 - Deletion of Residential Properties

A reduction in the proposed Project Area's size caused by the elimination of various developed or undeveloped assessed properties would diminish the Project's ability to address conditions of deficiency and underutilization within the proposed Project Area.

As an example, the elimination of all residential parcels from within the boundaries of the proposed Project Area would result in the exclusion of approximately 94 acres of developed land resulting in a reduced proposed Project Area of approximately 200 acres. The reason for this alternative is to lessen the impacts on the proposed Project Area residents from short-term traffic, noise and air quality impacts caused by construction of redevelopment projects and long-term demographic impacts, by reducing the number of housing units that could be built or rehabilitated in the proposed Project Area. An alternative project area of reduced size would, for an indeterminable period of time, prevent or minimize many of the potential side effects that could be generated from proposed redevelopment projects, such as incremental traffic increases, noise generated, increased air contaminants, public safety liabilities, and water consumption.

However, the proposed Project Area was selected based upon existing conditions of deficiency and the need for redevelopment to mitigate those conditions. In addition, the proposed Project was initiated to assist the Agency and the City in furthering the achievement of goals and objectives as defined within the City's General Plan. A reduction in the proposed Project Area's size brought about by the elimination of various developed or undeveloped residential properties would diminish the Agency's ability to address conditions of deficiency within the proposed Project Area, as defined in Section 1.4 of this EIR and the Preliminary Report, and diminish the City's ability to achieve the long-term goals and objectives of the General Plan. Proposed redevelopment projects and programs would be handicapped through the reduction of future tax increment revenues. With a localized Redevelopment Program, the tax increment created within the proposed Project Area alone constitutes the primary revenue source available to fund necessary redevelopment projects. Alternatives to reduce the total acreage of the proposed Project Area's size would significantly impede the Agency's ability to carry out targeted redevelopment projects by reducing available funding.

This alternative may deprive residential property owners excluded from the proposed Project Area boundaries of infrastructural improvements, such as water, drainage and circulation which would result within the proposed Project Area as part of the Project's long-term implementation. Therefore, housing units built outside the proposed Project Area may not be as well served by infrastructure as they would have been had they been built in the proposed Project Area. If housing unit construction or rehabilitation does not occur in conjunction with other redevelopment activities, the benefits of those redevelopment activities will lack coordination and may not directly benefit the population located in the alternative proposed Project Area boundaries. For this reason, this alternative is considered inferior to the proposed Project.

The existing conditions of deficiency, as described in Section 1.4 of this document and the Preliminary Report would not be alleviated within those areas eliminated from within the proposed Project Area boundaries.

The proposed Project Area was chosen based upon existing conditions of deficiency, which have been documented by the Agency, that are negatively affecting that Area's physical and economic condition. To allow these conditions to perpetuate themselves would not effect environmental benefit to any portion of the proposed Project Area or the City as a whole.

In the final analysis, the deletion of residential properties is not environmentally superior to the

proposed Project because the environmental benefits of the proposed Project, such as: (1) coordinated low income housing development that would result from the proposed Project, (2) flood control and drainage improvements, (3) employment opportunities in the area that would be excluded from the alternative proposed Project Area, (4) achievement of long-term General Plan goals and objectives, and (5) aesthetic improvements to the area that would be excluded from the alternative proposed Project Area, outweigh the environmental benefits of the alternative Project which would include reduced traffic generation, reduced noise impacts, reduced air contaminants, and reduced water consumption.

### 3.3 Limited Redevelopment Activities

This alternative to the proposed Project would be effectuated by reducing Agency activities and/or authority within the proposed Project Area. The effect of such a reduction in Agency activities would vary with the specific reduction. For example, limiting Agency assistance in providing needed public improvements and facilities would reduce the likelihood that such improvements and facilities would be provided. In as much as these improvements and facilities would mitigate existing deficiencies and growth related impacts, the environmental impacts resulting from implementation of the Limited Redevelopment Activities Alternative would be greater than those occurring as a result of the proposed Project's implementation.

Additionally, tax increment revenues would be severely restricted by reducing the size of the proposed Project Area. Such restrictions or limitations would result in commensurate reductions in the Agency's ability to undertake the Redevelopment Program as contemplated by the Agency including: 1) reductions in public improvements and facilities provided, 2) a restricted ability to eliminate conditions of deficiency, 3) a reduced ability to implement the goals and objectives of the Lafayette General Plan and to eliminate existing environmental deficiencies and problems occurring within the proposed Project Area.

One specific alternative to the proposed Project would limit redevelopment activity and prevent monies from being spent on public infrastructural improvements. In particular, these projects are designed to improve existing water, sewage and street systems. Limiting Agency assistance in providing needed public improvements would reduce the likelihood that such improvements would be provided.

The impacts of this alternative would be that deficiencies now existing within these infrastructural systems would not be mitigated. Thence, the capacity of the systems to absorb growth would be very limited. Other redevelopment activities such as the financing of housing and commercial development, and rehabilitation programs, would also be limited by the current capacity of existing infrastructure.

The environmental benefits of no infrastructural improvements would be that short-term impacts from traffic disruption and construction noise would be eliminated. Growth in population and traffic volumes would also be limited. These limitations would decrease certain environmental impacts such as air pollution, energy and natural resource consumption. However, assuming some growth will occur regardless of a redevelopment project, limiting infrastructural activity could be harmful to the environment. For instance, untimed traffic lights and deficient roadways may cause more congestion, safety hazards and pollution from idling traffic; inadequate storm drain facilities will increase erosion potential and threaten the safety of the general public.

In the final analysis, the limited redevelopment activities alternative is not an environmentally superior alternative to the Project because the environmental benefits of the limited redevelopment activity, such as: (1) a decrease in short-term impacts from traffic disruption and

construction noise and, (2) a decrease in long-term impacts on population and traffic volumes, are outweighed by the concomitant negative impacts that would result from limited redevelopment activity such as: (1) increased growth impacts on existing public facilities without upgrading those facilities and (2) the restrictions on the Agency's ability to mitigate current infrastructure deficiencies and undertake aesthetic improvements in the proposed Project Area.

### 3.4 Financing Alternative

The proposed Redevelopment Program is made possible, in large part, by the ability of the Agency to collect tax increment revenues from the proposed Project Area and then use these revenues to fund improvements within the proposed Project Area and within adjacent areas where funded improvements could be of benefit to the proposed Project Area. An alternative to the Project would be to undertake a generally similar program relying upon alternative sources of revenue (i.e. other than tax increment revenues).

Selection of this alternative would supplant tax increment revenues with funds from a variety of programs and sources, no single one of which would be sufficient in amount or breadth of purpose to accomplish the activities contemplated by the Agency. These alternative sources might include industrial development and mortgage revenue bonds, Community Development Block Grant (CDBG) funds, Economic Development Administration (EDA) funds, and in some cases assessment districts, and other county, state and federal assistance and funding programs. However, Federal and State grants are not definite and require ongoing applications.

The proposed Project authorizes the Agency to utilize all of the above financing sources and programs in order to effect redevelopment of the proposed Project Area. Moreover, California Community Redevelopment Law requires that the Agency give consideration to alternative financing sources when it proposes to provide public facilities and improvements with tax increment revenues, in effect causing the examination of alternative financing sources throughout the term of the Project.

A specific financing alternative would be to restrict financial resources to commercial development and mortgage revenue bonds. This alternative would severely limit rehabilitation and land write-down grants for construction of low/moderate housing units and other development projects. This is due to the overall reduction of availability in general revenue sharing programs resulting from federal legislation direction. The legislation has effectively limited the availability and general attractiveness of these instruments to developers by imposing restrictions and requirements on proposed developments. Therefore, the impacts of this alternative would make financing housing and other development projects more difficult. This would lessen the ability of the Agency to increase and improve the number of affordable housing units in the City. With less available housing, housing values would increase, exacerbating the problem of insufficient affordable housing.

The reduction in funds available for proposed Project improvements under this alternative could result in the elimination or curtailment in scope of various proposed improvement projects and programs. Under this proposal the Agency could choose to eliminate projects related to public infrastructural improvements. Such elimination would reduce the likelihood that such improvements would occur.

The positive impacts of no infrastructural improvements would result in the elimination of some traffic congestion previously identified as a short-term impact as well as short-term noise impacts related to construction activities. The impacts of this alternative would be that infrastructural deficiencies now existing would not be corrected.

Because one of the primary objectives of the proposed Plan is to finance infrastructure improvements such as highways, interchanges, ramps and street improvements, an infrastructure financing district should be considered as an alternative to the Project. Established by Senate Bill 308 in 1990, the enabling legislation (Government Code Section 53395, et seq.) authorizes cities to establish infrastructure financing districts to purchase, construct, expand and improve infrastructure of "community-wide significance." Like the Project, an infrastructure financing district would be funded by property tax increment (although only from certain taxing agencies which consent to give up their increment) and would be able to issue bonds to finance infrastructure activities. However, a number of drawbacks make infrastructure financing districts of limited usefulness. First, the constitutionality of the districts is uncertain. The Legislative Counsel (attorney for the California Legislature) opined that the enabling legislation is unconstitutional because it authorizes tax increment financing without requiring blight, and because an infrastructure financing district is not a "district" entitled to allocation of property taxes. Second, the requirement that taxing agencies must consent by resolution to donate their tax increment to the district severely limits the funds which can be obtained, particularly in comparison to the tax increment funds which would be generated by the Project. In addition, school districts and county boards of education are not even authorized to consent to give up their tax increment. Third, the legislative intent of Section 53395 is that infrastructure financing districts be used only in "substantially undeveloped areas." Only certain limited portions of the Project Area qualify as such. Fourth, the creation of an infrastructure financing district and its issuance of bonds must be approved by a two-thirds vote of all owners of property within the district. Obtaining such two-thirds approval would be much more difficult than obtaining approval of the Project. Fifth, the current statute contains a number of technical flaws requiring amendment. A bill has been introduced in the Legislative (Senate Bill 992) may have amended some of these problems, but it has not yet passed. Accordingly, it is uncertain whether a district could be validly formed and made operational.

The financing alternative would be environmentally inferior to the proposed Redevelopment Project. There currently exists no other sufficient financing vehicles available to the City which would sufficiently provide for the elimination of existing deficiencies in the proposed Project Area, as well as reduce the risk of increased negative impacts caused by incremental and sporadic development and growth which could occur in the area without redevelopment. Moreover, there is no assurance that the alternative financing vehicles which are presently available will remain available over the projected 30-year life of the Project.

Finally, tax increment revenues may be used for some mitigation activities for which there are simply no alternative financial resources available or expected to become available in the foreseeable future. Mitigation measures which could be financed with tax increment revenues include those special professional studies and activities in addition to City staff participation which are recommended to be activated (see Section 2 of this DEIR) should development activities sponsored by the Redevelopment Agency require such activation. Consequently, there is a higher probability that under this scenario, existing deficiencies would continue.

In the final analysis, the financing alternative is not environmentally superior to the proposed Project because the environmental benefits that could be realized from the Project outweigh possible long and short-term negative impacts.

# 4.0

# TOPICAL ISSUES

## 4.0 TOPICAL ISSUES

### 4.1 Irreversible and/or Unavoidable Environmental Changes Which Would Be Involved in the Proposed Action, Should It Be Implemented

If the proposed Plan is effectively implemented, the following irreversible and/or environmental changes would be involved:

a) The development and maintenance of streets, storm drains, and other public facilities, as proposed in the Plan, will involve the irreversible consumption of natural resources in the form of construction materials, water, and energy sources. Money and manpower will be expended to develop and maintain the facilities. Private construction projects will also require the consumption of such resources.

b) The development of individual parcels in accordance with land uses designated in the Plan will, for all intents and purposes, eliminate the possibility of development for other land uses.

c) A commitment of economic and manpower resources will be required for the long-term implementation of the Plan.

d) Building materials, including forest and mineral products, will be permanently committed in construction projects related to the long-term implementation of the proposed Plan.

e) Expenditures of money, manpower, and materials will be made to maintain adequate levels of public service to the greater community while those services are undergoing disruption and modification within the proposed Project Area.

f) Overall, there may be impacts to the following areas of concern, previously documented within Section 2.0 of this EIR, due to the growth-inducing nature of the Project:

- increased use of water resources and a decrease in air quality;
- increase in local traffic;
- increase in the ambient noise level;
- exposure of additional people and structures to existing geologic hazards;
- increase in energy consumption;
- increased demand on public utilities and services (sewer, water, police, fire, etc.);
- increased demand on solid waste disposal sites;
- increased risk of impacting unknown archaeological/historical resources.

Incorporation of recommended mitigation measures and the mitigation monitoring program, generally outlined within this EIR, together with the implementation of proposed redevelopment projects that will affect positive changes to the proposed Project Area's deficient physical and economic fabric will insure that all irreversible and/or unavoidable environmental impacts, as described above, can be adequately mitigated to a level of insignificance.

It is the intention of the Lafayette Redevelopment Agency to pursue the proposed Project regardless of the above mentioned irreversible and/or unavoidable environmental changes because the proposed Project is necessary to reduce and/or eliminate existing conditions of deficiency within the proposed Project Area. These deficient conditions include, but are not limited to: 1) deteriorating traffic/ circulation conditions; 2) lack of adequate pedestrian amenities, e.g., sidewalks, signage, landscaping, parks, etc.; 3) inadequate storm/drainage infrastructure curbs and gutters; 4) economic stagnation; and 5) deteriorating and/or obsolete public and private buildings.

A detailed description of the proposed Project Area's physical and economic deficiencies are described within the previously referenced Preliminary Report. A copy of this report is available for public review at the Lafayette City Clerk's office located at 3675 Mt. Diablo Blvd., Suite 210, Lafayette, CA 94549.

## 4.2 CUMULATIVE AND GROWTH INDUCING IMPACTS

The Project is a funding and administrative mechanism which allows goals and objectives of the City's General Plan to be effectively implemented. As such, long-term, positive economic and physical growth are expected to occur within the proposed Project Area. The overall intent of the proposed Project and the overriding cause for its adoption is to ensure orderly and well planned growth within the proposed Project Area and the City as a whole, in accord with the City's General Plan and all other applicable City, State, County and Federal laws and guidelines.

Implementation of various projects that will ultimately occur as a result of the proposed Project's adoption could contribute to regionally cumulative impacts. Because the general plans of other regional jurisdictions and direct growth within those jurisdictions, they too could affect potential long-term cumulative impacts.

Evaluation of cumulative impacts contained herein is based upon growth projections by the Association of Bay Area Governments (ABAG), 1994, for the County of Contra Costa (the "subregion"). These are growth projections that might occur between the years 1990 and 2010; more long-term growth projections are generally unavailable and would be so speculative that their value in forecasting environmental impacts is questionable.

It is difficult to determine the appropriate geographic setting whereby cumulative environmental impacts can be adequately evaluated. The Agency has considered several scenarios from which to prepare this analysis and has determined that the boundaries of the County of Contra Costa represent a reasonable geographic setting, suitable for assessing Project related cumulative impacts for the following reasons: 1) The representative County of Contra Costa services a large geographical area with a projected population of 1,104,700 people, a projected housing inventory of 414,020 and a projected employment base of 430,120 people by the year 2010; and 2) Quantification of cumulative impacts in this way permits evaluation at a level that is large enough to consider impacts upon issues of sub-regional importance, yet small enough to identify the value of these resources at the local level; evaluation of cumulative impacts at too small or too large a scale can distort the degree of impact.

The approach used in this analysis is intended to focus and quantify impacts to the appropriate areas. Such analysis is in compliance with CEQA Guidelines Sections 15130(B) which permits, "A summary of projections contained in an adopted General Plan or related planning document which is designed to evaluate regional or area-wide conditions . . ." and 15130(b)(3) which requires "A reasonable analysis of the cumulative impacts . . ." The areawide or subregional setting analyzed within this document will consist of the County of Contra Costa.

Listed in Table 14 is the breakdown of the projected growth and yearly average increases for civilian employment opportunities, housing units, and population increases for the Subregion.

**TABLE 14**
**SUBREGIONAL GROWTH FORECAST**
**COUNTY OF CONTRA COSTA**

| | 1990 | 2010 | Growth Increase | Yearly Average Increase |
|---|---|---|---|---|
| Housing | 300,288 | 414,020 | 113,732 | 5,687 |
| Population | 803,732 | 1,104,700 | 300,968 | 15,048 |
| Employment | 305,140 | 430,120 | 124,980 | 6,249 |

Source: Association of Bay Area Governments, 1994
Urban Futures, Inc., 1994

Sub-Regional Growth Impacts

Cumulatively, as projected by ABAG, approximately 300,968 people will be added to the sub-region over a 20 year period (1990-2010) or 15,058 people per year. Thus, over the next 16 years (1994-2010) 240,768 people will be added to the sub-region, assuming the average yearly increase. Of this total, *build-out of the proposed Project Area could contribute an additional 132*. This represents less than one percent of the total increase.

Cumulatively, as projected by ABAG, approximately 113,732 housing units will be added to the sub-region over a 20 year period (1990-2010) or 5,687 housing units per year. Therefore, over the next 16 years (1994-2010) 90,992 housing units will be added to the sub-region using the average yearly increase. Of this total, *build-out of the proposed Project Area could contribute an additional 157 units.* This represents less than one percent of the total increase.

Cumulatively, approximately 124,980 civilian jobs will be added to the sub-region over a 20 year (1990-2010) period or 6,249 jobs per year. Thus, over the next 16 years (1994-2010) 99,984 civilian jobs will be added to the sub-region based upon the average yearly increase. General Plan build-out within the proposed Project Area, facilitated by the Plan's adoption, will be the result of development and rehabilitation of many existing sites, in accordance with the General Plan. As a result of the long-term implementation of the proposed Plan there could be a *long-term increase of approximately 2,556 jobs,* or approximately 160 new jobs per year averaged over the next 16 years which is less than three percent of the total sub-regional increase.

Plan related growth projections (see Table 1) represent a very small percentage of projected regional growth; as such, negative impacts appear to be minimal (see Table 15). It is reasonable to assume that the region can accommodate Project related impacts without significant adverse environmental effects because this growth is in accord with local and regional growth management plans. Additionally, it must be stressed that future Plan related projects will be the result of development occurring over the life of the 30-year Plan. For example, if the projected population increase of 132 people was averaged over the 30-year life of the proposed Plan, the population increase would be approximately 4 people per year. If the

4 people per year were multiplied over the 16-year period (1994-2010) the figure of 70 would represent approximately two-hundredths of one percent of the regional growth that has been projected by ABAG. Projected increases in both housing inventories and job availability for the same period is adequate to service the increased population.

Plan related residential development is approximately one percent of the regional totals; for purposes of comparison this percentage reflects the ultimate proposed Project Area build-out over the first 16 years of the 30-year Plan. This total would be significantly less if averaged out over the full 30-year life of the proposed Plan.

Regional development could result in the following cumulative impacts:

- Increase in vehicle trips per day;
- Increased demand on water resources;
- Increased generation of wastewater and solid waste;
- Increase in students;
- Increase in noise levels;
- Decrease in air quality as the result of an increase in average daily trips and construction activities; and
- Public services.

Plan related increases in the consumption of water, generation of waste water and solid waste are presented in Table 15 as build-out totals, Project related growth will occur in a gradual manner, peaking, possibly, at the end of the 30-year life of the proposed Plan. Therefore, it is reasonable to assume that Project related cumulative impacts will be negligible.

Following are options for mitigating the above impacts:

| | | |
|---|---|---|
| 1. | Vehicle Trips | Traffic Demand Management Program |
| 2. | Water Resources | Water Conservation Program including flow restriction devices and drought resistant landscaping |
| 3. | Wastewater & Solid Waste | Conservation programs such as: water flow restriction devices and recycling |
| 4. | Noise Levels | Traffic Demand Management Program, construction site regulations |
| 5. | Air Quality | Traffic Demand Management Program |
| 6. | Public Services | Additional public services |
| 7. | Student Generation | Additional public facilities |

TABLE 15
SUBREGIONAL CUMULATIVE IMPACTS

| | Project Related[15] Development Statistics | Sub-Regional[16] Development Statistics (Includes Proposed Project Area) | % of Sub-Regional Projections |
|---|---|---|---|
| Housing | 157 | 90,992 | <1 |
| Population | 132 | 240,768 | <1 |
| Employment | 2,556 | 99,984 | <3 |
| Water Consumption (Gallons Per Day) | 23,892 | 36,115,200 | <1 |
| Waste Water Generation (Gallons Per Day) | 13,200 | 24,076,800 | <1 |
| Solid Waste (Tons Per Year) | 136 | 248,262 | <1 |

[15] Based upon General Plan build-out using the average yearly increase over the next 16 years (1994-2010). Impacts calculated over the 30 year life of the proposed Plan would be significantly less.
[16] Growth projections provided by ABAG based upon the average yearly increase over the next 16 years (1994-2010).

Source: Urban Futures, Inc., 1994

## 4.3 EFFECTS FOUND NOT TO BE SIGNIFICANT

The proposed Plan will be the catalyst for long-term growth within the proposed Project Area, however, the proposed Plan will not generate more extensive growth than is currently prescribed under the City's General Plan or, as shown under Section 4.3, Cumulative Impacts, the proposed Plan will not generate significant cumulative impacts on a sub-regional basis.

Anticipated negative impacts resulting from the proposed Plan's implementation are considered accepted effects of urbanization, consistent with, and necessary to ensure effective implementation of Lafayette's General Plan. As such, the following aspects of Lafayette's existing environmental setting shall not be significantly adversely impacted by the adoption and implementation of the proposed Plan:

- Demographics
- Traffic and Circulation
- Noise
- Air Quality
- Land Use
- Biological Resources
- Public Services and Utilities
- Earth Resources
- Cultural Resources

# 5.0

# PREPARERS AND CONTRIBUTORS TO THIS DOCUMENT

## 5.0 PREPARERS AND CONTRIBUTORS TO THIS DOCUMENT

This Environmental Impact Report was prepared under contract to the Lafayette Redevelopment Agency by Urban Futures, Inc. The following staff were involved in the preparation of this document:

Urban Futures, Inc.

| | |
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| Jon D. Huffman, ASLA | Principal-in-Charge |
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# 6.0

# AGENCIES, ORGANIZATIONS AND PERSONS CONSULTED

## 6.0 AGENCIES, ORGANIZATIONS AND PERSONS CONSULTED

1. City of Lafayette
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2. California State Department of Research
   Demographic Research

3. City of Concord
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4. Central Contra Costa Sanitary District
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5. California Regional Water Quality Control Board
   Martin Y. Musonge, Sanitary Engineering Associate

6. Department of Fish and Game
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7. East Bay Regional Park District
   T. H. Lindenmeyer, Environmental Specialist

8. Contra Costa Community College District
   Public Economics, Inc. (Advisors to the District)
   Kerry Kemp

9. California State Department of Transportation
   Kit Curtiss, Senior Transportation Planner

# 7.0

# FINAL MITIGATION MONITORING PROGRAM

## 7.0 FINAL MITIGATION MONITORING PROGRAM

### I. GENERAL

A. Need for Monitoring Program

1. A monitoring program is now required by Public Resources Code Section 21081.6, effective January 1, 1989.

2. A monitoring/reporting program is needed only for impacts which would produce significantly adverse environmental impacts if not mitigated.

3. All Environmental Impact Reports (EIRs) and mitigated negative declarations must clearly identify which impacts would be significant if not mitigated. Conditions of approval must clearly identify conditions applied to mitigate significant impacts. An ordinance or resolution adopting a Mitigated Negative Declaration or EIR must adopt the Monitoring Program.

B. Type of Conditions Requiring Monitoring

Where a mitigation measure is imposed, a monitoring program must be adopted. Some conditions requiring monitoring follow.

1. Conditions Affecting Permanent Construction

These conditions affect the permanent design and location of a structure. Examples would include building height, land coverage, floor area ratio, landscaping buffers, etc.

2. Construction Conditions

These conditions affect the way construction is carried out. Examples would include hours of operation, erosion control plans, preservation and protection of sensitive habitats, etc.

3. Operational Conditions

These conditions apply to the usable life of a structure. Examples would include hours of operation, noise and odor control, occupancy limits, etc.

C. Impacts Studied and Found to Not Need Mitigation

The following impacts have been studied and found to not need mitigation.

LAND USE
DEMOGRAPHICS
PUBLIC SERVICES AND UTILITIES
- Wastewater
- Solid Waste
- Schools

Parks and Recreation
Public Utilities

## II. ENVIRONMENTAL MITIGATION MONITORING PROCEDURES

The following procedures are required pursuant to the provisions of Public Resources Code Section 21081.6. It should be noted that each amendment related development that does occur, it will be evaluated on its own merits, and suitable mitigation measures will be developed in accordance with appropriate CEQA regulations.

The Developer of any project in the proposed Project Area shall prepare a written monitoring program consistent with the provisions of Public Resources Code Section 21081.6. This program shall be prepared to the specifications of the Planning Manager or the designee, and shall include at a minimum the following items:

1. A comprehensive phasing program, listing in chronological order the estimated dates for initiation and completion of all adopted mitigation measures, public improvements, grading, and construction approved in connection with the project.

2. If the project is accompanied by a development agreement, owner participation agreement, or other adopted agreement, applicant shall provide a schedule of quarterly reports and meeting to review the status of all mitigation measures, project improvements, and terms of development agreements. The schedules shall identify the parties assigned to complete these reports, their addresses and phone numbers. This information will be used to verify the status of all required mitigation actions.

3. A listing of the City officials and any other individuals under contract to the City (hereinafter referred to as "monitors") assigned to monitor any specific portions of the mitigation program requiring specialized expertise. This list shall be approved by the Planning Director or the designee with respect to the technical expertise and qualifications of said monitors. Monitors shall have full access to the subject property at any time during normal construction, business or operating hours.

   If Mitigation Measures are placed on the operation of the project, monitoring shall continue for the life of said project.

4. A checklist identifying all mitigation measures and the date of their proposed completion. The list will be signed by the appointed monitors (as designated per No. 3 above) upon completion of mitigation measures to demonstrate compliance with all applicable mitigation measures. The checklist shall be reviewed and approved by the Planning Director or the designee.

5. A signed "mitigation agreement" to the specifications of the City Attorney, which shall bind the applicant to implement all required mitigation measures. The mitigation agreement shall require the Developer to post cash or a letter of credit, in an amount to be determined by the Planning Director or the designee guaranteeing satisfactory compliance of all mitigation measures required by the project approval and which can be completed prior to issuance of the Certificate of Occupancy.

   Prior to release of cash or letter of credit posted by the applicant, the Planning Director or the designee shall issue a Certificate of Compliance with the approved monitoring program.

## III. ENVIRONMENTAL MITIGATION MONITORING PROGRAM

### A. Introduction

For the purposes of a Program Environmental Impact Report, it is difficult to prepare a detailed project-by-project mitigation monitoring program since the specific scope and nature of each individual project is unknown. The different and various land uses, specific project scopes, location, timing of adjacent projects, and many other factors affect the need, viability and usefulness of various mitigation measures. Many mitigation measures will apply almost universally to short-term construction impacts such as congestion, air quality degradation, noise and/or vibration impacts on sensitive receptors. Longer term, the existing negative conditions for undertaking the project in the first place may lessen as project improvements are completed and implemented.

It is reasonable to project a typical or " generic" EIR Monitoring Program that would be invoked to accompany a typical redevelopment, infrastructure or rehabilitation project undertaken in the proposed Project Area. The general outline of projects described in Appendix A are almost always undertaken to solve problems created in past waves of development in urban areas and by their very nature deal with the amelioration or cessation of harmful effects or impacts which currently exist and helped to create the need to undertake the project and establish redevelopment as the tool for change in these areas.

The procedures, when followed, as outlined in Section III above, should allow a flexible and focused project-specific list of mitigation measures which could include but not be limited to the following measures.

### B. Short- and Long-Term Mitigation Measures

In some instances, certain mitigation measures have been divided into two periods of duration for the purposes of a generic monitoring program. Short-term impacts and mitigation measures generally hereafter apply to the pre-construction and construction phase of each individual project implemented in the proposed Project Area. Long-term impacts generally apply to the post-construction conditions of operations or management of the assets created in the construction or rehabilitation phase and are either project-specific or Project Area-wide. Often once construction is complete, the immediate, obnoxious impacts of the project subside dramatically.

The long-term impacts of a project have stronger positive benefits i.e., jobs or revenue streams to local agencies and government which must be balanced against negative environmental impacts. They also may result in small, incremental increases in amounts of congestion, ambient noise levels, air quality degradation and the like. All other mitigation is long-term.

### C. Monitoring, Enforcement and Responsibility for Implementation

Each grouping of mitigation measures in the following sections assigns responsibilities to various proposed Project Area oversight authorities, and applicant/redevelopers. Whether private or public sector, responsibilities for the monitoring, enforcement and implementation of mitigation measures within each topical area are outlined for each grouping of mitigation measures.

D. Short-Term and Long-Term Mitigation Measures

Short-term and/or long-term mitigation measures which need to be monitored, enforced and implemented include those associated with ***Noise, Air Quality, Earth Resources, Transportation and Circulation, Biological Resources, Public Services and Utilities, and Cultural Resources***.

## NOISE

### Short-Term

A. Noise Impacts: Implementation of the proposed Plan will generate, directly or indirectly, a variety of construction projects. Development of these projects will generate unwanted noise to varying degrees.

B. Mitigation Measures: The following short-term mitigation measures are recommended as conditions of Project approval:

Short-Term

1. All Plan-related structures or properties involved in rehabilitation/development activities shall comply with the policies outlined in the Noise Element of the Lafayette General Plan.

2. All Project related construction projects shall be reviewed by the appropriate City department to determine possible short-term noise impacts upon identified sensitive noise receptors and to determine the need for Project specific acoustical analysis. Impacts determined to be significant in Project specific acoustical analysis shall be appropriately mitigated.

3. All construction equipment used for Project related construction activities shall be fitted with exhaust muffling and noise control filter devices to reduce noise impacts.

C. Mitigation Monitoring Program: The short-term mitigation measures should be applied to public and private projects during the construction phase of project development by the following:

| | | |
|---|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | | PROJECT APPLICANT/DEVELOPER |
| ENFORCEMENT AGENCIES: | | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | | CONSTRUCTION PHASE |
| MONITORING AGENCIES: | (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| | (public projects) | LAFAYETTE PUBLIC WORKS & ENGINEERING DEPTS. |

### Long-Term

A. Noise Impacts: An increase in the proposed Project Area's ambient noise levels will occur over the long-term caused by increased growth and activity within the proposed Project Area. Any long-term increase in ambient noise levels will be at levels permitted within the City General Plan and Zoning Regulations; these increased noise levels are

generally seen as acceptable conditions within the existing parameters of the proposed Project Area's urban setting.

B. Mitigation Measures: The following long-term mitigation measures are recommended as conditions of Project approval:

1. All Plan-related structures or properties involved in rehabilitation/development activities shall comply with the policies outlined in the Noise Element of the Lafayette General Plan.

2. All development projects shall be reviewed by the appropriate City department to determine possible long-term noise impacts upon identified sensitive noise receptors and the need for Project specific acoustical analysis. Impacts determined to be significant shall be appropriately mitigated.

3. Future developments initiated through implementation of the Project shall be allowed only in the areas as designated for that particular land use by the City's General Plan and Zoning Ordinance to ensure land use compatibility which will lessen noise impacts upon sensitive noise receptors. As a basis for general compliance, all related long-term site specific land use activities shall adhere to the policies outlined in the Land Use Element of the City's General Plan.

4. Building setbacks and noise barriers shall be considered and used where appropriate in conjunction with specific development proposals in the proposed Project Area to limit stationary and vehicular long-term noise impacts upon sensitive noise receptors.

C. Mitigation Monitoring Program: The long-term mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

## AIR QUALITY

### Short-Term

A. Air Quality Impacts: Temporary impacts will result from Project construction activities. Air pollutants will be emitted by construction equipment and dust will be generated during grading and site preparation.

B. Mitigation Measures : The following short-term mitigation measures are recommended as conditions of Project approval:

1. All Plan-related structures and properties involved in rehabilitation/ development activities shall comply with the affected policies pertaining to air quality as outlined in the Lafayette General Plan.

2. To minimize dust generation during grading operations AQMD Rule 403 shall be adhered to which will require watering during earth moving operations.

3. In order to reduce pollutant emissions from construction equipment it shall be properly maintained and tuned.

C. Mitigation Monitoring Program: The short-term mitigation measures should be applied to public and private projects during the construction phase of project development by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

Long-Term

A. Air Quality Impacts: The main source of emissions generated by the proposed Plan's implementation will be from motor vehicles. Regionally, personal commuting, office worker and retail site customer travel will add to regional trip generation and increase the vehicle miles traveled (VMT) within the local air shed. Locally, project related traffic, especially at a.m. and p.m. peak hours, will be added to the local roadway system. Other emissions will be generated from the residential and commercial combustion of natural gas for space heating and other uses as well as the generation of electricity.

B. Mitigation Measures: The following long-term mitigation measures are recommended as conditions of Project approval:

1. All Plan-related structures and properties involved in rehabilitation/ development activities shall comply with the affected policies pertaining to air quality as outlined in the Lafayette General Plan.

2. To ensure all future Plan related development and/or construction projects meet emissions standards set by the BAAQMD, all projects shall be subject to air quality analysis on a project-by-project basis if that Project meets or exceeds the potentially significant Air Quality impacts shown on Table 8 in Section 2.4, Air Quality. Such analysis shall determine specific project impacts and establish adequate, long-term measures to mitigate impacts if any are determined to exist.

3. The design and development of pedestrian walkways and bicycle trails shall be encouraged within the Project Area as a means for reducing motor vehicl traffic and air pollution emissions.

C. Mitigation Monitoring Program: The long-term mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

## EARTH RESOURCES

A. Impacts of Geology/Seismology: It is probable that portions of the proposed Project Area will be subjected to one or more significant groundshaking events during its lifetime. Damage to structures could occur and public safety could be threatened if new structures are not constructed to withstand anticipated maximum ground shaking events. People and structures could be susceptible to hazards related to liquefaction and other geotechnical hazards. New development in these susceptible areas, could generate potential risks for people and structures within the proposed Project Area.

B. Mitigation Measures: The following mitigation measures are recommended as conditions of Project approval:

1. Geotechnical and soils engineering reports shall be prepared in conjunction with the preparation of preliminary design layouts and grading plans for Plan-related development projects within the proposed Project Area. These studies will determine specific areas of hazardous soil conditions in those areas generally identified under A. Existing Conditions herein.

   These reports will provide specific mitigation measures for the treatment of potential geological hazards including seismic shaking, liquefaction and other hazardous soil conditions.

2. There are four related initial actions which the City of Lafayette and the Agency shall follow to ensure mitigation of seismic related hazards:

   a. Utilize geologic and seismic data in land planning so that identified risk areas, if any, are avoided or structures and landforms treated and designed to reflect local site conditions;

   b. Make sure that local grading and building codes reflect measures to minimize possible seismic damage;

   c. Inspect older buildings and improve earthquake design features when possible;

   d. Maintain a disaster preparedness plan.

3. All Plan-related rehabilitation/development activities shall be subjected to the policies as outlined in the Lafayette General Plan.

4. The faults identified in A. Existing Conditions are considered to be seismically active and capable of generating major earthquakes. The direct impacts of these faults upon proposed projects shall be considered during preliminary planning processes, as deemed necessary by Project specific environmental impact analysis.

5. The geotechnical and soils report recommendations as stipulated in C. Mitigation Measures, 1., of this Section, shall be incorporated into the design of new building foundations and roadways.

6. All rehabilitation and new development projects implemented as a result of the proposed Project, shall be built in accordance with current and applicable Uniform Building Code standards and all other applicable City, County, State and Federal laws, regulations and guidelines, which may limit construction and site preparation activities such as grading, and make provisions for appropriate land use restrictions, as deemed necessary, to protect residents and others from potential environmental safety hazards, either seismically induced or those resulting from other conditions such as inadequate soil conditions, as generally described under A. Existing Conditions, which may exist in the proposed Project Area.

C. Mitigation Monitoring Program: The mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

## BIOLOGICAL RESOURCES

A. Impacts on Biological Resources: Future development and redevelopment of the proposed Project Area, in accordance with the City's General Plan, City Zoning Ordinance, and all other applicable City, County, State and Federal laws, guidelines and regulations, could result in the elimination and/or displacement of assorted native and non-native plant species (primarily weeds) and some small rodents and mammals located in the proposed Project Area. However, this potential disruption to existing biological resources will not have a significant impact on the proposed Project Area's biotic communities due to their exiting degree of urbanization and amount of vacant/unimproved land within the proposed Project Area.

B. Mitigation Measures: The following mitigation measures are recommended as conditions of Project approval:

1. Discretionary development which could potentially impact biological resources shall be evaluated prior to project approval by a qualified biologist to assess impacts and if necessary, to develop mitigation measures. This evaluation shall include a complete assessment of all biological resources within the adjacent to the affected portions of the proposed Project Area with particular emphasis placed upon identifying endangered, threatened and locally unique species and sensitive and critical habitats.

2. Discretionary development shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.

3. The California Department of Fish and Game shall be consulted when discretionary development may affect significant biological resources. Notice shall be made to the Department of Fish and Game after the lead Agency has approved any project that will cause the diversion or obstruction of the natural flow or cause changes in the riverbed, channel or bank of any river, stream or lake. An agreement with the Department of Fish and Game must be made prior to initiating any such changes consistent with the Department of Fish and Game statutory authority.

C. Mitigation Monitoring Program: The mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER<br>CALIFORNIA DEPARTMENT OF CONSERVATION<br>& DEPARTMENT OF FISH AND GAME |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY,<br>CALIFORNIA DEPARTMENT OF CONSERVATION<br>& DEPARTMENT OF FISH AND GAME |
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE<br>AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

## TRANSPORTATION AND CIRCULATION

### Short-Term

A. Transportation/Circulation Impacts: Temporary traffic disruptions could occur as a result of roadway improvement projects.

B. Mitigation Measures: The following short-term mitigation measure is recommended as a condition of Project approval:

1. Short-term impacts to motorists, pedestrians and bicyclists shall be mitigated with the use of standard safety precautions generally employed during project construction, e.g., rerouting of traffic, use of flagmen, public notice of route closures and detours and other precautions and safeguards as may be deemed applicable by the appropriate City regulating body.

C. Mitigation Monitoring Program: The short-term mitigation measure should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT /DEVELOPER |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

Long-Term

A. Transportation/Circulation Impacts: Plan implementation could result in the generation of increased traffic volumes within the proposed Project Area and its surrounding environs due, in part, to an increase in the proposed Project Area's economic viability, improved housing market and employment base. However, Plan implementation will, as part of its broader purpose, serve to mitigate existing circulation deficiencies within the proposed Project Area through the implementation of traffic/circulation improvement projects.

B. Mitigation Measures: The following long-term mitigation measures are recommended as conditions of Project approval:

1. Projected project related increases in ADTs upon proposed Project Area roadways are not expected to significantly impact existing roadway Levels of Service over the long term in most instances. However, since project related site specifics are not known, such as type, size and location of potential developments, all impacted roadway segments as a result of proposed Plan related projects shall be evaluated on a project-by-project basis to determine specific project impacts including an evaluation of the cumulative impacts of development upon those roadway segments. Analyses shall include intersection capacity analysis and roadway segment trip assignment rates as necessary. Projects found to cause significant impacts to existing LOS and/or ICU shall include measures to lessen project related impacts.

2. All Plan-related structures and properties involved in rehabilitation/ development activities shall comply with the Lafayette General Plan.

C. Mitigation Monitoring Program: The long-term mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

## PUBLIC SERVICES AND UTILITIES

### Water Resources

A. Impacts on Water Resources: While the average yearly proposed Plan related increase in water consumption is not projected to be significant, conditions could change significantly over the 30-year life of the proposed Plan.

B. Mitigation Measures: The following mitigation measures are recommended as conditions of Project approval:

1. All Plan related growth inducing projects shall be evaluated by Agency staff working with City staff on a project-by-project basis to determine their impact upon currently available water resources. No project shall be approved unless available water resources are adequate to meet projected demand.

C. Mitigation Monitoring Program: The mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT /DEVELOPER |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

### Police Protection

A. Impacts on Police Protection: Implementation of the Project may have impacts on the provision of police protection to the proposed Project Area and the surrounding community due to an increase of growth in residential and commercial activities.

B. Mitigation Measures: The following mitigation measures are recommended as conditions of Project approval:

1. All proposals shall be reviewed on a project-by-project basis by the Lead Agency in conjunction with the Contra Costa Sheriff's Department to determine the need for specific project environmental impacts analysis.

2. In the event an analysis is deemed necessary and said analysis shows evidence of significant negative impact to existing police services/facilities, appropriate mitigations shall be incorporated into the project(s) by the Project proponent prior to project(s) approval.

C. Mitigation Monitoring Program: The mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER<br>CONTRA COSTA SHERIFF'S DEPARTMENT |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |

| | |
|---|---|
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE<br>POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV.<br>CONTRA COSTA SHERIFF'S DEPARTMENT |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

Fire Protection

A. Impacts on Fire Protection: There may be long-term impacts of providing long-term fire suppression and prevention services to the proposed Project Area due to an increase of growth in residential and commercial activities.

B. Mitigation Measures: The following mitigation measures are recommended as conditions of Project approval:

1. All growth inducing Projects shall be reviewed on a project-by-project basis by the Lead Agency in conjunction with fire department officials to determine the need for specific project environmental impact analysis.

2. In the event an analysis is conducted and said analysis shows evidence of significant negative impact to existing fire services/facilities, such that existing levels of service and emergency response times deteriorate beyond acceptable levels, the Project proponent shall work with Agency/City staff to develop appropriate mitigation measures which shall be incorporated into the project(s) prior to the project(s) approval.

C. Mitigation Monitoring Program: The mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER<br>CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV.<br>CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS.<br>CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT |

Flood Control/Drainage

A. Impacts to Flood Control and Drainage: Implementation of the proposed Plan, in accordance with the Lafayette General Plan, would increase the amount of surface flow generated in the City. Increased surface flow could exacerbate flood conditions and degrade water resources. However, since 98% of the proposed Project Area is urbanized, implementation of the proposed Plan would have a minimal increase in the amount of surface flow generated in the City.

B. Mitigation Measures: The following mitigation measures are recommended as condition of Project approval:

1. All Plan-related, growth inducing projects shall be evaluated by Agency staff working with City staff on a project-by-project basis to determine their impact on flood control/drainage and water quality. No project shall be approved unless there is adequate on-site drainage and no significant impacts to water quality.

C. Mitigation Monitoring Program: The mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |
| MONITORING PHASES: | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

## CULTURAL RESOURCES

A. Impacts of Project Implementation on Cultural Resources: The potential does exist for the proposed Project to impact unknown archaeological sites and could cause a significant negative impact upon existing Project Area historical resources.

B. Mitigation Measures: The following mitigation measures are recommended as a condition of Project approval.

1. In the event presently unknown archaeological or historical resources are discovered during development of specific projects, work shall be terminated until such time that a certified archaeological/historical consultant can investigate the findings. In such a case, the investigating archaeologist/ historian shall determine appropriate future actions that must be taken prior to continuation of the affected project(s).

2. All structures and properties involved in rehabilitation/development activities shall be evaluated for historic significance in accordance with the historic resources guidelines set forth in the City Zoning Ordinance (Chapter 6-21).

3. The existing condition of all historic structures that are approved for demolition, removal from existing site and/or modification shall be documented with photographs and written descriptions prior to commencement of the approved action.

C. Mitigation Monitoring Program: The mitigation measures should be applied to public and private projects by the following:

| | |
|---|---|
| RESPONSIBILITY FOR IMPLEMENTATION: | PROJECT APPLICANT/DEVELOPER |
| ENFORCEMENT AGENCIES: | LAFAYETTE REDEVELOPMENT AGENCY |

| | | |
|---|---|---|
| MONITORING PHASES: | | PRE-CONSTRUCTION PHASE, CONSTRUCTION PHASE AND POST-CONSTRUCTION PHASE |
| MONITORING AGENCIES: | (private projects) | LAFAYETTE BUILDING & PLANNING DIV. |
| | (public projects) | LAFAYETTE PUBLIC WORKS & ENG. DEPTS. |

# 8.0

# COMMENTS RECEIVED ON THE FINAL DRAFT EIR

*8.0 Comments Received on the Draft EIR*

*see page i*

# 9.0

# RESPONSES TO COMMENTS RECEIVED ON THE DRAFT EIR

## *9.0 Response to Comments Received on the Draft EIR*

*see page i*

# *APPENDICES*

# *APPENDIX A*

# *PROPOSED PROJECTS/PROGRAMS LIST*

# City of Lafayette
# Lafayette Redevelopment Agency
# Proposed Project List

- *Business Revitalization*
- *Landscaping, Open Space, and Aesthetics*
- *Infrastructure*
- *Circulation*
- *Community Facilities*
- *Housing*

## Monday, August 29, 1994 Draft

# Introduction

This proposed list of redevelopment projects was drafted and set into priorities by the Lafayette City Council and the following committee of Lafayette residents and staff members:

**Guy Atwood**
Chair, Lafayette General Plan Advisory Committee
Member, Lafayette Homeowner's Council

**Sereta Churchill**
Realtor, Former President of the Contra Costa Board of Realtors

**Martha Lee**
Chair, Lafayette Design Review Committee

**Carl Piercy**
Chair, Lafayette Capital Projects Assessment Committee
Member, Lafayette Taxpayer's Association

**Jay Strauss**
President, Lafayette Chamber of Commerce
Member, Lafayette Planning Commission

**Art Ungar**
Chair, Lafayette Planning Commission

**Tim Ward**
Member, Lafayette Design Review Committee

**Bob Adams**
City Manager

**Steven Falk**
Assistant City Manager

**Niroop Srivatsa**
Planning Director

# Introduction, continued

Note that this document was developed as a means of identifying those projects which would serve to most effectively revitalize and rehabilitate Lafayette's proposed redevelopment project area. The work-plan proposed herein is subject to the approval of the Lafayette City Council, serving as the Lafayette Redevelopment Agency.

All costs identified in this document are estimates expressed in 1994 dollars. Because improvements will be provided at different times over the life of the plan, the dollars ultimately expended for the foregoing improvements may exceed the numbers shown due to such factors as: (1) increases in construction costs over time, (2) inflation, and (3) financing costs.

Based upon the current state of economic and physical conditions in the downtown area, the projects in this list have been ranked according to priority. "First priority" projects are designated by two stars (**), second priority projects are designated by one star (*), and the remaining projects receive no stars. Note that the achievement of the various enumerated improvements on this project list will be affected by such factors as (1) gross revenues available to the agency, (2) appropriation priorities as established from time to time by the governing board of the agency, (3) the availability of the other "matching" or supplemental funding, and (4) other activities of the agency.

# Business Revitalization

**Mission:** The mission of the business revitalization program is to enhance the long term economic well-being of the community. The program will use various financial incentives to improve and invigorate Lafayette's business climate, attract new business ventures, provide adequate and convenient off-street parking and other public improvements as necessary, and maintain and improve upon the City's small town character.

**Programs include:**

| # | Priority? | Program | Min. Cost ($) | Max. Cost ($) |
|---|---|---|---|---|
| BR1 | * * | • Procure land and provide convenient off-street parking lots in the downtown area according to the City's master parking improvement plan | 2,000,000 | 10,000,000 |
| BR2 | * * | • Provide incentives to improve commercial projects and facades. | 500,000 | 8,000,000 |
| BR3 | * * | • Promote economic development within the downtown business corridor on a scale complimentary to the existing development patterns and consistent with the City's general plan | 2,000,000 | 20,000,000 |
| BR4 | | • Pavement and lighting enhancements for private parking lots | | 3,000,000 |
| BR5 | | • Provide incentives to retrofit buildings located in the downtown area constructed with unreinforced masonry | | 2,000,000 |
| BR6 | | • Develop programs to retain current businesses and attract new business ventures | | 1,000,000 |
| | | Subtotal | 4,500,000 | 43,000,000 |

# ♣♣ Landscaping, Open Space, and Aesthetics

**Mission:** The mission of the landscaping, open space, and aesthetics program is to preserve Lafayette's natural setting, beautify the downtown and surrounding areas, preserve and enhance historic sections of the City, and implement the General Plan.

**Programs include:**

| # | Priority? | Program | Min. Cost ($) | Max. Cost ($) |
|---|---|---|---|---|
| LOA1 | * * | • Implement the City's approved downtown master landscaping plan, which includes planting new and replacing deficient street trees, improving and irrigating street islands, and improving pedestrian walkways | 500,000 | 5,000,000 |
| LOA2 | * | • Rehabilitate and reconstruct the Plaza Park area with special emphasis on its historical significance | 250,000 | 500,000 |
| LOA3 | * | • Stabilize and improve visibility and access to creeks located in the downtown core area | 250,000 | 3,000,000 |
| LOA4 | * | • Redesign, revitalize, and improve planting and signage at all significant gateways into the City | 150,000 | 500,000 |
| | | Subtotal | 1,150,000 | 9,000,000 |

# Infrastructure

**Mission:** The mission of the infrastructure program is to construct or reconstruct, where necessary, capital improvements located in the project area, including but not limited to streets, drains, and lights. The program will, where possible, supplement other available funding to achieve the same ends. This program also proposes to assist in funding the under-grounding of power lines in the downtown core area.

**Programs include:**

| # | Priority? | Program | Min. Cost ($) | Max. Cost ($) |
|---|---|---|---|---|
| I1 | * * | • Replace and reconstruct storm drains in coordination with street reconstruction projects | 350,000 | 7,000,000 |
| I2 | * * | • Undertake pavement management efforts including reconstruction of Mt. Diablo Boulevard and other streets located in the project area | 500,000 | 4,000,000 |
| I3 | * * | • Under-ground utilities and replace streetlights with "vintage" lamp fixtures on major streets in the core downtown area | 1,000,000 | 4,000,000 |
| I4 | | • Complete street reconstruction and pedestrian circulation projects as they become necessary within the project area | | 11,000,000 |
| | | Subtotal | 1,850,000 | 26,000,000 |

# Circulation

**Mission:** The mission of the circulation program is to improve traffic, pedestrian, and bicycle circulation in Lafayette while maintaining the City's small town atmosphere. This program will also address safety problems in the redevelopment area.

**Programs include:**

| # | Priority? | Program | Min. Cost ($) | Max. Cost ($) |
|---|---|---|---|---|
| C1 | * | · Improve traffic and pedestrian circulation in the core business district. | 500,000 | 15,000,000 |
| C2 | * | · Improve parking and pedestrian circulation systems along Lafayette Circle, Golden Gate Way, Brown Avenue, and other streets in the downtown area needing such improvements | 250,000 | 1,000,000 |
| C3 | | · Implement the City's bikeways master plan in the downtown core area | | 500,000 |
| | | Subtotal | 750,000 | 16,500,000 |

# Community Facilities

**Mission:** The mission of the community facilities program is to utilize limited redevelopment funds to reinvigorate certain civic facilities which provide services to the entire community.

**Programs include:**

| # | Priority? | Program | Min. Cost ($) | Max. Cost ($) |
|---|---|---|---|---|
| CF1 | | • Improve meeting places and provide gathering points and activity areas for Lafayette's senior citizens | | 1,000,000 |
| CF2 | | • Rebuild and/or upgrade the Lafayette Library facility | | 3,000,000 |
| CF3 | | • Provide a well-designed and seismically-stable Police substation and Emergency Operating Center | | 2,000,000 |
| | | Subtotal | 0 | 6,000,000 |

# Housing

**Mission:** The mission of the housing program is to preserve and promote the high quality of Lafayette's affordable housing stock and implement the housing element of the City's general plan.

**Programs include:**

| # | Priority? | Program | Min. Cost ($) | Max. Cost ($) |
|---|---|---|---|---|
| H1 | * * | • Construct new and/or rehabilitate existing senior citizen living facilities; provide incentive programs to construct new senior units | 1,000,000 | 10,000,000 |
| H2 | * | • Provide incentives to rehabilitate Lafayette's housing stock, including upgrades to appearance, wiring, plumbing, painting, roof repairs, and seismic upgrades | 500,000 | 8,000,000 |
| H3 | * | • Develop programs to implement the housing element of the City's general plan | 500,000 | 2,500,000 |
| H4 | | • Provide assistance for first-time home buyers in the form of low interest loans, assistance with down payments, and/or other programs as may be approved | | 1,500,000 |
| | | Subtotal | 2,000,000 | 22,000,000 |

# Attachment A:
# Summary of First Priority Projects

| # | Priority? | Program | Min. Cost ($) |
|---|---|---|---|
| BR1 | ** | Procure land and provide convenient off-street parking lots in the downtown area according to the City's master parking improvement plan | 2,000,000 |
| BR2 | ** | Provide incentives to improve commercial projects and facades. | 500,000 |
| BR3 | ** | Promote economic development within the downtown business corridor on a scale complimentary to the existing development patterns and consistent with the City's general plan | 2,000,000 |
| LOA1 | ** | Implement the City's approved downtown master landscaping plan, which includes planting new and replacing deficient street trees, improving and irrigating street islands, and improving pedestrian walkways | 500,000 |
| I1 | ** | Replace and reconstruct storm drains in coordination with street reconstruction projects | 350,000 |
| I2 | ** | Undertake pavement management efforts including reconstruction of Mt. Diablo Boulevard and other streets located in the project area | 500,000 |
| I3 | ** | Under-ground utilities and replace streetlights with "vintage" lamp fixtures on major streets in the core downtown area | 1,000,000 |
| H1 | ** | Construct new and/or rehabilitate existing senior citizen living facilities; provide incentive programs to construct new senior units | 1,000,000 |
| | | Subtotal | 7,850,000 |

# Attachment B:
# Summary of Second Priority Projects

| # | Priority? | Program | Min. Cost ($) |
|---|---|---|---|
| LOA2 | * | Rehabilitate and reconstruct the Plaza Park area with special emphasis on its historical significance | 250,000 |
| LOA3 | * | Stabilize and improve visibility and access to creeks located in the downtown core area | 250,000 |
| LOA4 | * | Redesign, revitalize, and improve planting and signage at all significant gateways into the City | 150,000 |
| C1 | * | Improve traffic and pedestrian circulation in the core business district. | 500,000 |
| C2 | * | Improve parking and pedestrian circulation systems along Lafayette Circle, Golden Gate Way, Brown Avenue, and other streets in the downtown area needing such improvements | 250,000 |
| H2 | * | Provide incentives to rehabilitate Lafayette's housing stock, including upgrades to appearance, wiring, plumbing, painting, roof repairs, and seismic upgrades | 500,000 |
| H3 | * | Develop programs to implement the housing element of the City's general plan | 500,000 |
| | | Subtotal | 1,900,000 |

# ♣♣ Attachment C: Summary of All Projects

| # | Priority ? | Program | Min. Cost ($) | Max. Cost ($) |
|---|---|---|---|---|
| BR1 | ★ ★ | Procure land and provide convenient off-street parking lots in the downtown area according to the City's master parking improvement plan | 2,000,000 | 10,000,000 |
| BR2 | ★ ★ | Provide incentives to improve commercial projects and facades. | 500,000 | 8,000,000 |
| BR3 | ★ ★ | Promote economic development within the downtown business corridor on a scale complimentary to the existing development patterns and consistent with the City's general plan | 2,000,000 | 20,000,000 |
| BR4 | | Pavement and lighting enhancements for private parking lots | | 3,000,000 |
| BR5 | | Provide incentives to retrofit buildings located in the downtown area constructed with unreinforced masonry | | 2,000,000 |
| BR6 | | Develop programs to retain current businesses and attract new business ventures | | 1,000,000 |
| LOA1 | ★ ★ | Implement the City's approved downtown master landscaping plan, which includes planting new and replacing deficient street trees, improving and irrigating street islands, and improving pedestrian walkways | 500,000 | 5,000,000 |
| LOA2 | ★ | Rehabilitate and reconstruct the Plaza Park area with special emphasis on its historical significance | 250,000 | 500,000 |
| LOA3 | ★ | Stabilize and improve visibility and access to creeks located in the downtown core area | 250,000 | 3,000,000 |
| LOA4 | ★ | Redesign, revitalize, and improve planting and signage at all significant gateways into the City | 150,000 | 500,000 |
| I1 | ★ ★ | Replace and reconstruct storm drains in coordination with street reconstruction projects | 350,000 | 7,000,000 |

| # | Priority ? | Program | Min. Cost ($) | Max. Cost ($) |
|---|---|---|---|---|
| I2 | * * | Undertake pavement management efforts including reconstruction of Mt. Diablo Boulevard and other streets located in the project area | 500,000 | 4,000,000 |
| I3 | * * | Under-ground utilities and replace streetlights with "vintage" lamp fixtures on major streets in the core downtown area | 1,000,000 | 4,000,000 |
| I4 | | Complete street reconstruction and pedestrian circulation projects as they become necessary within the project area | | 11,000,000 |
| C1 | * | Improve traffic and pedestrian circulation in the core business district. | 500,000 | 15,000,000 |
| C2 | * | Improve parking and pedestrian circulation systems along Lafayette Circle, Golden Gate Way, Brown Avenue, and other streets in the downtown area needing such improvements | 250,000 | 1,000,000 |
| C3 | | Implement the City's bikeways master plan in the downtown core area | | 500,000 |
| CF1 | | Improve meeting places and provide gathering points and activity areas for Lafayette's senior citizens | | 1,000,000 |
| CF2 | | Rebuild and/or upgrade the Lafayette Library facility | | 3,000,000 |
| CF3 | | Provide a well-designed and seismically-stable Police substation and Emergency Operating Center | | 2,000,000 |
| H1 | * * | Construct new and/or rehabilitate existing senior citizen living facilities; provide incentive programs to construct new senior units | 1,000,000 | 10,000,000 |
| H2 | * | Provide incentives to rehabilitate Lafayette's housing stock, including upgrades to appearance, wiring, plumbing, painting, roof repairs, and seismic upgrades | 500,000 | 8,000,000 |
| H3 | * | Develop programs to implement the housing element of the City's general plan | 500,000 | 2,500,000 |

| # | Priority ? | Program | Min. Cost ($) | Max. Cost ($) |
|---|---|---|---|---|
| H4 | | Provide assistance for first-time home buyers in the form of low interest loans, assistance with down payments, and/or other programs as may be approved | | 1,500,000 |
| | | Total | 10,250,000 | 123,500,000 |

# APPENDIX B

# NOTICE OF PREPARATION

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

# NOTICE OF PREPARATION

TO:

FROM: Urban Futures, Inc.
801 Chapman Avenue
Suite 106
Fullerton, CA 92631

SUBJECT: Notice of Preparation of an Environmental Impact Report

The Lafayette Redevelopment Agency is the Lead Agency and will prepare a Program Environmental Impact Report (EIR) for the project identified below. The Agency needs to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the Final EIR prepared by the Agency when considering your permit or other approval for the project.

The project description and location map are attached. A copy of the Initial Study _x_ is, _____ is not, attached.

Due to the time limits mandated by State Law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Mr. Jon Huffman, Urban Futures, Inc., 801 E. Chapman Avenue, Suite 106, Fullerton, California 92631. Please include the name of a contact person in your agency.

PROJECT TITLE: Lafayette Redevelopment Project

PROJECT APPLICANT, IF ANY: none

DATE: 2/15/94

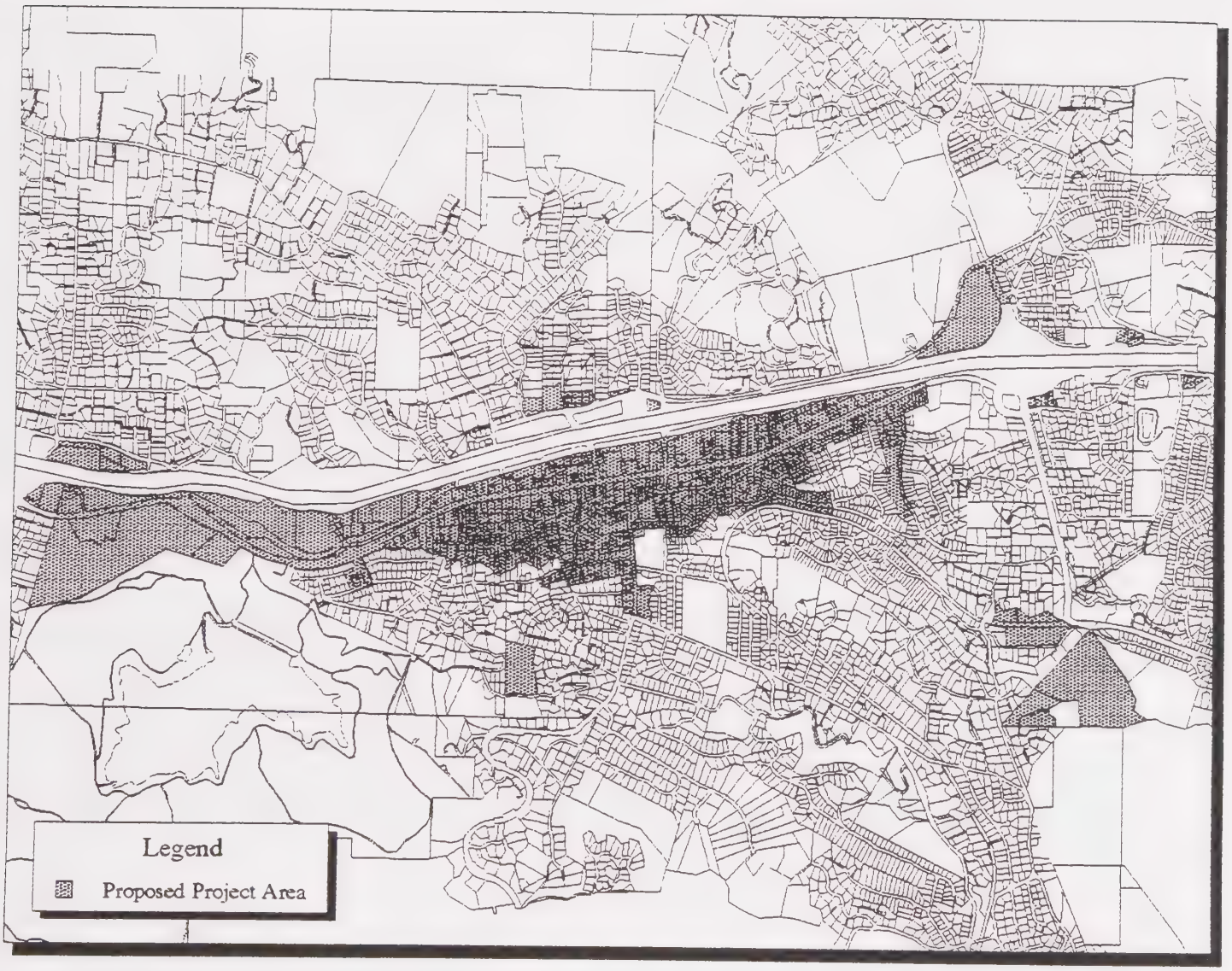
Signature

Jon Huffman
Executive Vice President, Planning
Urban Futures, Inc.

Title: Advisors to the Lafayette Redevelopment Agency

Telephone: (714) 738-4277

Reference: California Code of Regulations, Title 14, Sections 15035.7, 15054.3, 15066(c).




# Lafayette Redevelopment Project

## Map of the Project Area

Prepared By:
Urban Futures, Inc.
801 E. Chapman Ave., Ste. 106
Fullerton, CA 92631

N

Not to Scale

The proposed Plan will be effective for 30 years from the date of its adoption; implementation will be generally guided by market demand, property and business owner participation, and availability of funding sources. No specific development projects are known to the Agency at this time, hence, there is no way for the Agency to forecast or predict with great detail what degree of impact the proposed project will have upon the long-term growth of the proposed Project Area. The Agency can only project, based upon the success of most other redevelopment projects within the State of California, that the Project will be the catalyst for positive, long-term economic and physical growth within the proposed Project Area.

It is difficult, therefore, to determine to what degree of specificity to calculate potential growth and possible related negative impacts resulting from the proposed Project's long-term implementation. The Agency has determined that, because the proposed Project is a tool that can be used by the City of Lafayette to affect implementation of their General Plan, the appropriate measurement of Project impact is best evaluated in terms of General Plan build-out of the proposed Project Area. As such, the Agency will base all projections within the EIR upon a General Plan build-out scenario. The exact degree of the proposed Project's influence upon ultimate General Plan build-out within the proposed Project Area is indeterminable at this time, but, it does allow the Agency to quantify, within parameters established by existing General Plan policies and guidelines, potential long-term Project-related impacts.

At this time, only the general nature of possible redevelopment activities or projects is known. These may include the rehabilitation and improvement of existing structures and infrastructure, the construction of needed public facilities such as community buildings, low income housing programs, infrastructure and circulation improvements, and grants, and/or loans to encourage long-term economic development.

**Purpose and Intended Use**

The Program EIR is intended for use by the general public, officials of the City of Lafayette, the Lafayette Redevelopment Agency, State level responsible agencies and other interested agencies wishing to evaluate the environmental effects of the proposed Project. It is designed to be a full disclosure document that will accompany the proposed Project through the adoption process.

The following agencies will be responsible for taking certain actions regarding the Plan's adoption:

1) Lafayette Planning Commission: evaluate the Project's conformity with the City General Plan and adopt respective conformity resolutions;

2) The Lafayette Redevelopment Agency: approves and recommends the Plan's adoption;

3) Lafayette City Council: approve and adopt the Redevelopment Plan prepared for the Project by City ordinance.

The Program EIR prepared for the proposed Project will not be used for any specific project approvals beyond adoption of the proposed Plan itself. Beyond that approval, this document may be used as a base document for the evaluation of project-specific development proposals, whereby, in conjunction with CEQA requirements, a determination will be made regarding the need for further or additional specific environmental impact review and analysis.

## APPENDIX

## ENVIRONMENTAL CHECKLIST FORM
(To be completed by Lead Agency)

### I. BACKGROUND

1. Name of Proponent Lafayette Redevelopment Agency
2. Address and Phone Number of Proponent:
   3675 Mt. Diablo Blvd., Suite 210
   Lafayette, CA 94549-1968
   (510) 284-1968
3. Date of Checklist Submitted 2/15/94
4. Agency Requiring Checklist Lafayette Redevelopment Agency
5. Name of Proposal, if applicable Lafayette Redevelopment Project

### II. ENVIRONMENTAL IMPACTS
(Explanation of all "yes", "maybe" and "no" answers are required on attached sheets)

| | Yes | Maybe | No |
|---|---|---|---|
| 1. Earth. Will the proposal result in: | | | |
| a. Unstable earth conditions or in changes in geologic substructures? | | | X |
| b. Disruptions, displacements, compaction or overcovering of the soil? | X | | |
| c. Change in topography or ground surfaces relief features? | | | X |
| d. The destruction, covering or modification of any unique geologic or physical features? | | | X |
| e. Any increase in wind or water erosion of soils, either on or off the site? | | | X |
| f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake? | | | X |
| g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards? | | X | |
| 2. Air. Will the proposal result in: | | | |
| a. Substantial air emissions or deterioration of ambient air quality? | | | X |
| b. The creation of objectionable odors? | | | X |
| c. Alternation of air movement, moisture or temperature, or any change in climate, either locally or regionally? | | | X |

| | Yes | Maybe | No |
|---|---|---|---|
| 3. Water. Will the proposal result in: | | | |
| a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters? | | | X |
| b. Changes in absorption rates, drainage patterns or the rate and amount of surface water runoff? | | X | |
| c. Alterations to the course or flow of flood waters? | | | X |
| d. Change in the amount of surface water in any water body? | | | X |
| e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity? | | | X |
| f. Alteration of the direction or rate of flow of ground waters? | | | X |
| g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations? | | | X |
| h. Substantial reduction in the amount of water otherwise available for public water supplies? | | | X |
| i. Exposure of people or property to water related hazards such as flooding or tidal waves? | | | X |
| 4. Plant Life. Will the proposal result in: | | | |
| a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)? | | X | |
| b. Reduction of the numbers of any unique, rare or endangered species of plants? | | | X |
| c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species? | | | X |
| d. Reduction in acreage of any agricultural crop? | | | X |
| 5. Animal Life. Will the proposal result in: | | | |
| a. Change in the diversity of species, or numbers of any species of animals (birds, land animals, including reptiles, fish and shellfish, benthic organisms or insects)? | | X | |
| b. Reduction of the numbers of any unique, rare or endangered species of animals? | | | X |
| c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals? | | | X |
| d. Deterioration to existing fish or wildlife habitat? | | X | |

| | Yes | Maybe | No |
|---|---|---|---|
| 6. Noise. Will the proposal result in: | | | |
| a. Increases in existing noise levels? | | | X |
| b. Exposure of people to severe noise levels? | | | X |
| 7. Light or Glare. Will the proposal produce new light or glare? | | | X |
| 8. Land Use. Will the proposal result in a substantial alteration of the present or planned land use of an area? | | X | |
| 9. Natural Resources. Will the proposal result in: | | | |
| a. Increase in the rate of use of any natural resources? | | | X |
| b. Substantial depletion of any nonrenewable natural resource? | | | X |
| 10. Risk of Upset. Will the proposal involve: | | | |
| a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions? | | | X |
| b. Possible interference with an emergency response plan or an emergency evacuation plan? | | | X |
| 11. Population. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area? | | X | |
| 12. Housing. Will the proposal affect existing housing, or create a demand for additional housing? | X | | |
| 13. Transportation/Circulation. Will the proposal result in: | | | |
| a. Generation of substantial additional vehicular movement? | | X | |
| b. Effects on existing parking facilities, or demand for new parking? | | X | |
| c. Substantial impact upon existing transportation systems? | | X | |
| d. Alterations to present patterns of circulation or movement of people and/or goods? | | X | |
| e. Alterations to waterborne, rail or air traffic? | | | X |
| f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians? | | | X |
| 14. Public Services. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas: | | | |
| a. Fire protection? | | X | |
| b. Police protection? | | X | |

| | Yes | Maybe | No |
|---|---|---|---|
| c. Schools? | | X | |
| d. Parks or other recreational facilities? | | X | |
| e. Maintenance of public facilities, including roads? | | X | |
| f. Other governmental services? | | X | |
| 15. Energy. Will the proposal result in: | | | |
| a. Use of substantial amounts of fuel or energy? | | | X |
| b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy? | | | X |
| 16. Utilities. Will the proposal result in a need for new systems, or substantial alterations to the following utilities: | | | |
| a. Power or natural gas? | | | X |
| b. Communications systems? | | | X |
| c. Water? | | X | |
| d. Sewer or septic tanks? | | X | |
| e. Storm water drainage? | | X | |
| f. Solid waste and disposal? | | X | |
| 17. Human Health. Will the proposal result in: | | | |
| a. Creation of any health hazard or potential health hazard (excluding mental health)? | | | X |
| b. Exposure of people to potential health hazards? | | | X |
| 18. Aesthetics. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view? | | | X |
| 19. Recreation. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities? | | | X |
| 20. Cultural Resources. | | | |
| a. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archaeological site? | | | X |
| b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object? | | | X |
| c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values? | | | X |

| | Yes | Maybe | No |
|---|---|---|---|
| d. Will the proposal restrict existing religious or sacred uses within the potential impact area? | ____ | ____ | X |
| 21. Mandatory Findings of Significance. | | | |
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause of fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ____ | X | ____ |
| b. Does the project have the potential to achieve short-term, to the disadvantage of a long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.) | ____ | X | ____ |
| c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.) | ____ | ____ | X |
| d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ____ | ____ | ____ |

**III. DISCUSSION OF ENVIRONMENTAL EVALUATION**

# SUPPLEMENT TO ENVIRONMENTAL IMPACT CHECKLIST FOR THE PROPOSED LAFAYETTE REDEVELOPMENT PROJECT

The following defines the types of environmental impacts which may affect the existing environmental setting within the proposed Project Area for the Lafayette Redevelopment Project (the "Project" or "Plan") should it be adopted and implemented. This supplement is intended to supplement the Initial Study Checklist.

The EIR will evaluate each of the areas of concern outlined in the Environmental Checklist accompanied by a "Yes" or "Maybe" response, to determine significant impacts, if any, and recommend appropriate mitigation measures to lessen those significant impacts to a level of insignificance if possible. Those items accompanies with a "No" response on the attached checklist will not be evaluated further.

## 1. EARTH RESOURCES

Implementation of the proposed Project could ultimately cause the displacement, compaction or over-covering of previously pervious surfaces caused by construction of new structures and public facilities. These new structures and public facilities could also be exposed to primary and secondary seismic hazards from the nearby faults such as the Hayward, Concord and Antioch faults. Such hazards may include ground shaking, liquefaction, soil instability and land subsidence.

## 2. AIR RESOURCES

Due to the degree of urbanization already existing within the Project Area and the nature of the redevelopment activities, as described within the Project Description, there will be no adverse environmental impacts to the overall air quality within the City of Lafayette and surrounding areas as a result of Project implementation.

## 3. WATER

Implementation of the proposed Project may result in increases in the rate and amount of surface run-off due to the covering of pervious surfaces with impervious building and paving materials. However, this may or may not be significant depending on the size and location of specific developments.

The introduction of urban uses, to presently undeveloped areas, could affect the supply of ground water that might be available. Implementation of public improvements to water delivery systems and storm drain systems could result in changes in the pattern of existing surface drainage.

## BIOLOGICAL RESOURCES (4. Plant Life and 5. Animal Life)

Implementation of the Project may result in a change in the diversity or number of species of plants or animals or their habitat due to the proximity of such species located

in the region. An assessment of impacts will be made based upon the existing data available as stated in the Lafayette General Plan. The Agency may require additional environmental impact assessment on a project-by-project basis once project specifics are known such as location, size and type of development.

## 6. NOISE

Implementation of the Project is anticipated to result in short-term noise impacts associated with construction projects and construction equipment. Potential long-term noise impacts affecting the proposed Project Area or caused by proposed Project related projects could result from increased motor vehicle noise, railway noise and industrial noise. Long-term increases in the existing noise levels caused by increased urbanization will be at levels permitted by the City of Lafayette's General Plan and Zoning Code. These levels, which will be assessed using existing data, are generally seen as acceptable conditions within the parameters of an urban setting. The Agency may require additional environmental impact assessment for projects that may have the potential for generation of significant noise levels.

## 7. LIGHT AND GLARE

The implementation of the proposed Project should not produce a significant increase in light and glare due to the nature of the redevelopment activities as previously described in the Project Description.

## 8. LAND USE

The proposed Project will comply with, and conform to, the goals, objectives and policies of the Lafayette General Plan and Zoning Code, as amended from time to time, and all other applicable City, State and County land use laws, restrictions and guidelines. Improvements to the proposed Project Area's level of land use utilization, made possible in part by the proposed Project's implementation, are expected to increase the proposed Project Area's level of land utilization to the long range levels designed in the City's General Plan. As a result, all related impacts are anticipated to be positive in the long-term.

## 9. NATURAL RESOURCES

The proposed Project's implementation may cause an increase in the rate of consumption of natural resources such as water, building materials, petroleum products and land. However, the rate of increase will be consistent with existing growth and land use policies established within the City's General Plan, and as policies may be amended from time to time.

## 10. RISK OF UPSET

The proposed Project is not anticipated to cause a risk of an explosion or release of hazardous substances or interfere with emergency response plans due to the nature of the

redevelopment activities which, consistent with General Plan land use policy, are primarily industrial, commercial and residential in nature.

**DEMOGRAPHICS** (11. Population and 12. Housing)

Implementation of the proposed Project may ultimately generate the need for additional housing inventory within the City caused by related population and employment increases within or related to growth and redevelopment within the proposed Project Area. These increases will generally be caused by an improvement in the City's economic, social and physical settings. All long-term increases will be in accordance with existing General Plan growth and land use policies.

## 13. TRANSPORTATION/CIRCULATION

The proposed Project will comply with, and conform to, the goals, objectives and policies of the Lafayette General Plan Circulation Element. The proposed Project is anticipated to generate positive changes to the proposed Project Area's existing circulation system caused by roadway traffic control and pedestrian oriented improvement projects implemented throughout the proposed Project Area.

Because of the proposed Project's growth inducing nature, it will indirectly generate additional vehicular traffic which will impact existing Project Area roadways. The degree of this impact will be assessed using existing data. The City may require additional environmental impact assessments for specific projects that have the potential for generating significant increases upon the existing circulation system.

Increased commercial/industrial development activities may require new parking facilities, however, these facilities would be integral to any new development project.

## 14. PUBLIC SERVICES

The proposed Project's implementation will increase the demand for public services and facilities. This increased demand will be fueled by an increased population and related growth which will be the end result of improved economic, physical and social settings. However, the adoption and subsequent implementation would ultimately result in positive impacts to existing public services and facilities caused by the provision of funds to construct needed facilities and provide adequate levels of service.

## 15. ENERGY

Implementation of the proposed Project will not generate the need for additional energy production due to the degree of urbanization within the proposed Project Area.

## 16. UTILITIES

Similar to Public Services above, the proposed Project's implementation will ultimately have some impact on utilities; however, the impact is anticipated to be positive in that

the proposed Project would provide a funding and administrative vehicle that can be used to facilitate the expansion and/or upgrading of deficient utility delivery systems.

## 17. HUMAN HEALTH

Due to the type of redevelopment activities stated earlier in the Project Description, it is anticipated that the proposed Project will have no adverse environmental impacts to human health.

## 18. AESTHETICS

The proposed Project's implementation will enhance the quality of the proposed Project Area due to redevelopment activities, as previously described in the Project Description. No negative impacts are anticipated.

## 19. RECREATION

The impact upon recreation facilities due to redevelopment activities will be positive in nature because these activities may include the construction of park facilities to offset any deficiencies that may currently exist. However, an increased population could place demands upon existing facilities that are beyond acceptable levels.

## 20. CULTURAL RESOURCES

Due to the degree of urbanization there are no prehistoric or historic archaeological sites within the Project Area. The Project's implementation will not cause any environmental impacts to prehistoric or historic structures or buildings.

## 21. MANDATORY FINDINGS OF SIGNIFICANCE

Cumulatively, redevelopment of the proposed Project Area may have an impact on the proposed Project Area and the City in general. This impact will be generated by the Agency's ability to fund and administrate projects and programs that will ultimately, while causing an increase to the City's population, eliminate blight, provide decent, safe and sanitary housing, provide jobs and increase the City's tax base.

Because the potential does exist for significant impacts to the existing environmental setting caused by the proposed Project's implementation, a Program EIR is deemed necessary.

## *APPENDIX C*

## *RESPONSES TO NOTICE OF PREPARATION*

# REGIONAL PARKS

EAST BAY REGIONAL PARK DISTRICT

RECEIVED
MAR 16 1994
Ans'd.....



March 14, 1994

Mr. John Huffman
Urban Futures, Inc.
801 E. Chapman Ave., #106
Fullerton, CA 92631

SUBJECT: EIR FOR THE LAFAYETTE REDEVELOPMENT PROJECT
LAFAYETTE-MORAGA REGIONAL TRAIL

Dear Mr. Huffman:

The East Bay Regional Park District has reviewed the Notice of Preparation and Initial Study for the subject document. The District requests that the EIR specifically address the potential for significant adverse impacts upon the portions of the Lafayette-Moraga trail which exists within and adjacent to the Redevelopment Area. The District also requests that the EIR evaluate the potential for the project to substantially inhibit or preclude the District's planned trail, through the Redevelopment Area, connecting the Lafayette-Moraga trail to the Lafayette Ridge trail in Briones Regional Park.

The contact person for the subject document is the undersigned who may be reached at (510) 635-0138, extension 2622.

Very truly yours,

T.H. Lindenmeyer
Environmental Specialist

c:\t\94\huffman.ltr

2950 Peralta Oaks Court • P.O. Box 5381 • Oakland CA 94605 0381 • 510.635.0135 • FAX 510.569.4319

PUBLIC ECONOMICS, INC.

Public Finance
Urban Economics
Development Services



March 11, 1994

Mr. Jon Huffman
Urban Futures, Inc.
801 E. Chapman Avenue, Suite 106
Fullerton, CA 92631

Dear Mr. Huffman:

Public Economics, Inc. has received your Notice of Preparation and Initial Study for the City of Lafayette Redevelopment Project ("Project"). Our client, the Contra Costa Community College District ("District"), has requested that we respond to this notice on their behalf. The District provides services within the Project area and exercises authority over resources which may be affected by the Project. The District is also an "affected taxing entity" as defined in Section 33353.2 of the California Health and Safety Code as it levies property taxes within the Project area.

Based on Section 21080.4 of the California Environmental Quality Act, the District requests that school impacts be identified and evaluated in the EIR since schools were identified in the Initial Study as a public service which may be impacted by the Project. The EIR should identify impacts of the Project on the District based on existing land uses, maximum development potential to General Plan buildout, population and housing growth, and direct and indirect effects of job creation on household growth.

The EIR should also recommend quantifiable measures to fully mitigate impacts of the Project on the District. The District requests that the EIR evaluate sources of mitigation including, but not necessarily limited to, statutory pass-throughs to the District pursuant to the Community Redevelopment Law Reform Act of 1993 and mitigation from the City of Lafayette and developers.

Please call me if you need any additional information regarding this response.

Sincerely yours,

Kerry Kemp
Consultant

cc: Mr. Chuck Ely, Contra Costa Community College District
Mr. Dante Gumucio, Public Economics, Inc.

m:\lafayett\nop_ltr.sam

2100 E. Katella Avenue, Suite 195
Anaheim, CA 92806
(714) 937-0806 / FAX (714) 937-1804

980 Ninth Street, Suite 1600
Sacramento, CA 95814
(916) 449-9646 / FAX (916) 446-7104

STATE OF CALIFORNIA - THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME
POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500



PETE WILSON, Governor

March 15, 1994

Mr John Huffman
Urban Futures, Inc.
801 East Chapman Avenue, Suite 106
Fullerton, California 92631

Dear Mr. Huffman:

Notice of Preparation (NOP) for a Program Level
Environmental Impact Report (EIR)
for the Lafayette Redevelopment Project

Department of Fish and Game personnel have reviewed the NOP described above. The proposal is for a variety of activities including infrastucture improvements, such as drainage and circulation improvements and construction of structures. Please address the following concerns while preparing the document.

The Draft Environmental Impact Report (DEIR) should contain a complete description and map of the vegetation and creeks within the planning area. Impacts to habitats and mitigation measures necessary to offset those impacts should be identified and discussed. We recommend impacts be mitigated by avoidance, minimization of impacts, and acquisition and preservation as open space of at least an equal area and quality as that lost.

It is the policy of this Department that a project should cause no net loss of either wetland acreage or wetland habitat value. We recommend impacts to creeks be avoided where possible. Impacts would include, but are not limited to, road crossings, culverts, channelization, and rip rap. If improvements to the creek must be made for reasons of public health and safety, retention basins would be preferable to channelization of the entire stream. In areas which must be channelized, we recommend the channel be oversized in order to allow for vegetation along both banks. Unavoidable impacts should be identified and mitigation provided for in the document. Mitigation for lost wetlands or creeks must include the creation of new wetlands on at least a 1:1 basis. Higher value wetlands will require higher ratios for compensation. Areas proposed as wetland mitigation sites must be identified specifically in the document. Riparian vegetation removed should be replaced on a 3:1 in-kind basis using native species.

The Department recommends a minimum 100-foot buffer be established to protect streams and wetlands and their associated vegetation, and provide a travel corridor for wildlife. The buffer should be measured outward from the top of each streambank or from the edge of any wetland. In the case of riparian vegeration along stream courses, the setback should be measured outward from the development side of the vegetative canopy. No roads or structures should be permitted within the buffer. Pedestrian trails should be located along the outside edge of the riparian vegetation.

Any work within the banks of any creek, including road crossings and culverts, will require a streambed alteration agreement with this Department. The Department has direct jurisdiction under Fish and Game Code sections 1601-03 in regard to any proposed activities that would divert or obstruct the natural flow or change the bed, channel, or bank of any stream. We recommend early consultation since modification of the proposed project may be required to avoid impacts to fish and wildlife resources. Formal notification of proposed channel modifications under Fish and Game Code Section 1603 should be made after all other permits and certifications have been obtained. Work cannot be initiated until a streambed alteration agreement is executed.

The U. S. Army Corps of Engineers has jurisdiction over the discharge of fill to streams and wetlands under Section 404 of the Clean Water Act. If work is to be done in any creek or wetland, we recommend the Corps be notified to determine if they have jurisdiction and require a permit.

Runoff from parking lots contributes to non-point source pollution in creeks which impacts aquatic species. To mitigate these impacts, we recommend oil/grease separators be required in the storm drain system of all 50-car or larger parking lots. Annual maintenance of the separators, as well as a sweeping program for the lot itself, should also be required. Properly sized and maintained separators will reduce the amount of oil flowing into the creek, as well as allow time in the summer for the degradation of biodegradable materials such as some detergents used to wash cars.

Surveys should be conducted for any rare, threatened, or endangered species which may exist on site. Federal candidate species, wildlife listed as species of special concern, and plants listed by the California Native Plant Society should be included. The Department's Natural Diversity Data Base should be consulted for any known site-specific occurrences and for a list of species found in the general area. A report from the Data Base which lists no findings for the project site does not indicate these species do not exist there, only that no information is in the file. Consequently, a negative result from a Data Base search must not be used to obviate the need for requisite surveys.

Surveys for sensitiive species should be conducted at the proper time of year to locate them. Impacts to these species and their habitats should be avoided. Impacts which are unavoidable should be identified and appropriate mitigation provided.

California Environmental Quality Act (CEQA) Guidelines (Section 15126d) state that discussion of alternatives shall focus on those capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly. It requires that the "no project" alternative be evaluated. State and Federal policy state that the preferred method of mitigation is impact avoidance.

The DEIR must provide a thorough description of mitigation measures proposed to reduce or eliminate any significant impacts. The monitoring program, required by Assembly Bill 3180, (CEQA Section 21081.6) must ensure that mitigation measures are effective and must provide for corrective action if they are not.

Thank you for considering our concerns. If you have any questions or comments regarding any of the above, please contact Caitlin Bean, Environemtnal Specialist III, at (707) 944-5570; or Carl Wilcox, Environmental Services Supervisor, at (707) 944-5525.

Sincerely,

Brian Hunter
Regional Manager
Region 3

STATE OF CALIFORNIA PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612
(510) 286-1255



March 15, 1994
File No. 2118.04(MYM)



Mr. Jon Huffman
Lafayette Redevelopment Agency
3675 Mt. Diablo Boulevard
Suite 210
Lafayette, CA 94549

SUBJECT: SCH # 94033001: Lafayette Redevelopment Project, Contra Costa County

Dear Mr. Huffman:

We have reviewed the subject notice of preparation (NOP) of an environmental impact report. In the NOP the proposed project is described to include, but not limited to, the following: the construction, reconstruction and improvement of structures, public works, infrastructure improvements, such as drainage and circulation improvements, and development assistance programs such as land write-downs and low-interest loans.

We have the following concerns and comments:

1. The project may be subject to coverage under the statewide general construction permit for stormwater. Under this program, the City will be required to apply for coverage under the permit if the total amount of land area disturbed during construction is equal to or greater than five acres.

   The permit requires the preparation of a stormwater pollution prevention plan, addressing erosion control and runoff during construction and longterm measures for runoff control following the completion of construction.

2. If wetlands are affected, the EIR should note the Regional Board's Wetland Fill Policy, which requires no net loss of wetland acreage and no net loss of wetland value. Mitigation may be required, preferably in-kind and onsite with no destruction of habitat value.

3. If the project requires a U.S. Corps of Engineers permit, the Regional Board must certify that the Corps permit complies with water quality standards, or waive such certification. If not waived, the certification can be granted or denied. If two or more acres of wetlands are affected, the certification must be voted on by the Regional Board in a public hearing. However, if the area is less than two acres, certification can be handled administratively.

If you have any questions regarding this letter, please contact me at (510) 286-4264.

Sincerely,

Martin Y. Musonge,
Sanitary Engineering
Associate

Central Contra Costa Sanitary District
5019 Imhoff Place, Martinez, California 94553-4392
(510) 228-9500 • FAX: (510) 676-7211

March 15, 1994

RECEIVED
MAR 2 1 1994
Ans'd.....

ROGER J. DOLAN
General Manager
Chief Engineer

KENTON L. ALM
Counsel for the District
(510) 938-1430

JOYCE E. MURPHY
Secretary of the District

Urban Futures, Inc.
801 E. Chapman Avenue, Suite 106
Fullerton, CA 92631

ATTENTION: JON HUFFMAN

Ladies and Gentlemen:

DEVELOPMENT REVIEW
LAFAYETTE REDEVELOPMENT PROJECT
WS: 22

The Central Contra Costa Sanitary District is a public service provider for the proposed project under CEQA. The District is responsible for determining the route and design capacity of sewers serving property within its boundaries and for providing wastewater collection, treatment, and disposal services. We request that the following comments be addressed in the EIR.

1. SEWER SERVICE AVAILABILITY AND GENERAL DISTRICT REQUIREMENTS

1.1 The project site is within the CCCSD boundaries, and sewer service has been planned for this area.

1.2 Some new development in the redevelopment area may require the construction of sewer mains. The developer should be aware that District policy requires gravity sewers in preference to pumped systems and the location of public sewers in public streets rather than in off-street locations to the extent possible. Variances from this policy are discouraged. However, the District will consider alternatives on a case-by-case basis where the project engineer justifies such alternatives to the District's satisfaction.

Specific requirements are:

**Gravity Service**. Sewers are to be designed to operate under gravity flow to the District's existing sanitary sewer system. The use of sewage pumps for individual lots will not be permitted unless it is economically impractical to construct a main sewer to provide gravity service. The District's current "Standard Specifications" document provides criteria for allowing the use of sewage pumps at individual lots.

**Location in Streets**. As a minimum, an 8-inch public sewer must be

extended by the developer to serve each parcel (residential or commercial lot, townhouse unit, condominium building, or apartment complex, as appropriate). New sewer systems are to be designed with the maximum amount of public sewers located in streets. If public sewers proposed for this project are to be located in an off-street location, the project engineer must justify such location to the satisfaction of the District.

**Easements.** An exclusive public sewer easement must be established over the alignment of each public sewer in an off-street or private street location to provide access for future maintenance. The following criteria are used to determine the public sewer easement width:

- The sewer easement width shall be 15 feet where the public sewer is less than 12 inches in diameter and the depth is 9 feet or less.
- The sewer easement width shall be 20 feet where the public sewer is 12 inches and larger in diameter or the depth is greater than 9 feet.
- If new public sewers are being installed across properties where existing improvements will remain in place adjacent to the new public sewers, sewer easement width may be reduced at the discretion of the District, but in no case can the width be less than 10 feet.

In addition, all-weather access for the District's maintenance vehicles to all manholes and rodding inlets in off-street locations is required. All-weather access typically consists of a 10-foot wide cross section with a surface course of turf-block, 2 inches of asphalt concrete, or other equivalent all-weather surface acceptable to the District, over 6 inches of aggregate base. The use of sanitary sewer easement surfaces shall be limited to paving, shrubbery, gardens, and other landscaping, excluding trees. Parallel surface drainage ways and permanent structures including, but not limited to, buildings, swimming pools, decks, and retaining walls are not permitted within the easement area.

## 2. SOURCE CONTROL REQUIREMENTS

The District has reviewed this project for source control requirements. Base wastewater flow from this project appears to be domestic wastewater such as from residential, office, or church sources. Specific source control requirements are normally not applicable to domestic wastewater. However, materials such as gasoline, oil, sand, paint, pesticide residues, or other toxic substances are prohibited from being introduced into the District's sewer system.

The proposed project includes commercial business activity use. The developer should be aware that the District's Source Control Ordinance is applicable to

potential commercial tenants. Project and tenant improvement plans must be reviewed by the District to determine the specific source control requirements which will apply.

3. SEWER CAPACITY

Within the project area, several sewer deficiencies have been identified where existing 6-inch diameter sewer mains should be upsized to 8-inch diameter: Lafayette Circle (Hough Avenue to Mt. Diablo Blvd.), Mt. Diablo Blvd. (Lafayette Circle - east to Moraga Road), Moraga Road (Mt. Diablo Blvd., to Plaza Drive), and Plaza Drive (Moraga Road to Golden Gate Way). The Redevelopment Agency should consider including these improvements in the project description.

The District has completed a capacity study for the sewer system downstream of the proposed project. This study determined that the existing sewer system will be deficient during extreme rain events. Improvements to correct the deficiencies are in the District's Ten-Year Capital Improvement Plan. Improvements to the District's existing facilities that are required as a result of new development will be funded from applicable District fees and charges. The developer will be required to pay these fees and charges at the time of connection to the sewer system.

4. PRIVATE SEWERS

The proposed project includes side sewers. A side sewer is defined as a private sewer which is owned and maintained by the property owner and which connects the plumbing system of the building to the main sewer. The side sewer begins at the point of connection to the building plumbing system 2 feet outside the foundation line or building wall and terminates at the point of connection to the main sewer.

District policy requires that the developer be responsible for installation of the side sewer, and the property owner be responsible for operation and maintenance of the side sewer. District review of the design and inspection of the work on the side sewer shall in no way constitute our acceptance of any responsibility for maintenance or damage to property due to construction and subsequent operation and maintenance of the side sewer.

The design intent of the typical side sewer details included in the District's current "Standard Specification" document is to reduce the amount of rainfall and groundwater that will infiltrate the sewer, thereby avoiding unnecessary pumping and treatment costs. The typical side sewer details are not intended to meet the geotechnical, structural, or drainage requirements of special situations.

5. HILLSIDE AND CREEK AREA SEWER POLICY

The District has a Hillside and Creek Area Sewer Policy which addresses the design and installation of sewers in hillsides or unstable areas. The requirements of this policy must be followed when construction plans are prepared. For your convenience, a copy of the policy is enclosed.

6. TREATMENT PLANT CAPACITY

The District's current discharge permit allows an average dry weather flow rate of 45 million gallons per day (mgd) based on a secondary level of treatment. The actual average dry weather flow rate is 33.6 mgd based upon the past three years' data. The 45 mgd treatment plant capacity should be adequate until the 1997-2000 year time frame based upon historical connection rates to the District's collection system. However, unforeseen circumstances in the Treatment Plant Expansion Program or requirements imposed by state, federal, or regional authorities could affect the availability of sewer connections at any time.

The Sanitary District must review and approve any construction plans involving work on the public sewer system prior to the developer's applying for a building permit. The District's Permit Section will receive and process the construction plans. Also, contact the District's Permit Section regarding fees applicable to this project.

Sincerely,

Russell B. Leavitt

Russell B. Leavitt, AICP
Planning Assistant

RBL:ns

Enclosure

c: City of Lafayette
Planning Department
251 Lafayette Circle
Lafayette, CA 94549

CENTRAL CONTRA COSTA SANITARY DISTRICT
HILLSIDE AND CREEK AREA SEWER POLICY

## PROCEDURES TO BE FOLLOWED FOR DESIGNING SEWERS TO BE LOCATED IN HILLSIDE AND CREEK AREAS

1. Soils reports will be required where:

   a. Slopes of hills where sewers are proposed for installation exceed 15 percent.

   b. Sewers are proposed for installation within 50 feet of creek beds.

   c. Sewers are proposed for installation within the range of influence of a possible landslide from adjacent hill.

   d. Sewers are proposed for installation in historical slide locations.

2. A soils report covering the proposed project must be prepared by a registered civil engineer practicing in Geotechnical Engineering and be submitted by the job engineer.

3. If the project geotechnical report does not cover an off-road sewer alignment, the District may require a supplementary report. This report, at a minimum, must address the following:

   a. Supplementary geological setting, general soils and bedrock conditions along the proposed sewer alignment and recommended setbacks from slides and creeks.

   b. Stability or instability of selected sewer alignment.

   c. Potential groundwater problems.

   d. Effect of trenching on slope stability (negative impacts on slope).

   e. Special backfill, special trenching requirements, or special supports that may be recommended.

   f. Erosion potential of soils around sewer near waterways.

   g. Recommended corrections if an instability exists or may develop.

4. Installation of sewers in unrepaired slide areas is to be avoided.

   a. If an acceptable gravity route is feasible around the unrepaired slide, the sewer must be installed around the slide.

   b. If the only feasible gravity route is through a slide area, a complete study of the slide must be made by a Geotechnical Engineer. The Geotechnical Engineer must propose a solution which is satisfactory to the District. The normal solution is repair of the slide.

   c. If a satisfactory gravity solution does not exist, the pumping of sewage from individual homes will be considered.

5. The project engineer must furnish a map which shows existing creeks or swales which may convey water in the vicinity of any proposed sewer main alignments.

(continued on other side)

6. Sewers shall not be designed to be located in the bottom of swales or creeks.

7. For sewers which will be parallel to swales or creeks, the sewer must be designed far enough away from the drainageway to eliminate the possibility of future eroding around the sewer. A Geotechnical Engineer shall review the proposed alignment and furnish recommendations regarding long-term erosion potentials.

    a. If it is infeasible to locate sewer mains on the downslope side of future homes and maintain a safe distance from drainageways, consideration will be given to installing the sewers in street areas and installing residential sewage pumps on individual homes.

8. For sewers which cross creeks or swales, the crossing shall be as nearly perpendicular to the drainageway as feasible.

    a. Bank and bottom protection shall be designed per the recommendation of a Geotechnical Engineer and shall be installed in the drainageway as a part of the overhead or underground crossing.

    b. The project engineers shall pay particular attention to designing adequate support foundations and protection for the foundation.

9. An access easement (minimum width of 10 feet) shall be granted by the developer from the nearest public street to the creek crossing structure along the route of the sewer main, if possible, for future maintenance.

10. The following design standards shall be used by the project engineer when designing sewers in hillside and/or creek areas.

    a. Sewers to be installed across hillside slopes (generally parallel to contours) shall be ductile iron (no bedding) if the cross slope of the hill exceeds 25 percent.

    b. Sewers to be installed parallel to defined creeks shall be located no closer than 20 feet from the top of the bank if the creek bank is defined; if not, no closer than 30 feet from the centerline of the creek.

    c. Sewers to be installed parallel to defined creeks from 20-50 feet away from the top of the bank shall be ductile iron (no bedding).

    d. Manholes to be installed on either ends of creek crossings shall be located no closer than 20 feet from the top of the creek bank.

Rec'd 4/25/94

since 1918

# CANYON ELEMENTARY SCHOOL

April 18, 1994

Jon Huffman
Executive Vice President
Urban Futures, Inc.
801 Chapman Avenue
Suite 106
Fullerton, CA 92631

Dear Mr. Huffman:

We are in receipt of your Notice of Preparation of an Environmental Impact Report for the Lafayette Redevelopment Agency. We have no reason to question this project.

Please send further notices to the Governing Board of the Canyon School District at the above address.

Very truly yours,

Ellen Flagg
Member, Governing Board

P. O. Box 187 • Pinehurst Rd • Canyon, CA 94516
(510) 376-4671 • Fax: (510) 376-2343

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
BOX 23660
OAKLAND, CA 94623-0660
(510) 286-4444
TDD (510) 286-4454

RECEIVED
MAR 31 1994
CITY OF LAFAYETTE

March 28, 1994

CC-024-6.51
SCH#94033001
CC024145

Mr. Jon Huffman
Lafayette Redevelopment Agency
3675 Mt. Diablo Boulevard, Suite 210
Lafayette, CA 94549

RE: **Notice of Preparation of a Program EIR for the proposed Lafayette Redevelopment Project** - The 582-acre proposed Project Area in its regional context is located within Contra Costa County.

Dear Mr. Huffman:

Thank you for including the Department of Transportation (Caltrans) in the review process for projects in Contra Costa County. After reviewing the above referenced document, we have the following comments:

• Section 15180, while stating that "an EIR on a redevelopment plan shall be treated as a program EIR," adds that a subsequent EIR and/or a supplement to an EIR may be required if conditions described under Sections 15162 or 15163 are applicable.

• A traffic impact analysis should be prepared to assess the impact of this proposal on State highway facilities. The analysis should include an assessment of this proposal's impacts on, at least, the following facilities:

Route 24 (mainline)
Acalanes Rd. I/C
First St. I/C
Pleasant Hill Rd. I/C

State facilities distant from the project site which are operating, or are projected to operate, at a degraded level of service should also be evaluated if this project could add significant traffic volumes to the facility.

The traffic study should include trip generation, distribution and assignment. The methodologies used in compiling the information should be explained. Trip distribution information should be based on a realistic estimate of where the residents of the development will work and shop.

Traffic information should be presented in terms of average daily traffic volumes, AM and PM peak hour volumes and level of service for the above listed facilities. Traffic data should be calculated for each of the following conditions:

- Existing traffic
- Existing plus project traffic
- Existing plus project plus cumulative traffic

Calculation of cumulative traffic volumes should consider all traffic generating development that would affect the facilities evaluated, and should not be limited to projects under the jurisdiction of the lead agency.

Diagrams illustrating traffic distribution and assignment, and a map showing the locations of approved projects in the vicinity should be included.

The traffic study must include adequate mitigation for impacts to State highway facilities. Mitigation measures considered should include highway and non-highway improvements. Special attention should be given to the development of alternative solutions to circulation problems which do not rely on increased highway construction.

• Additionally, all mitigation proposed should be fully discussed in the environmental document. This discussion should include but not be limited to the following areas:

- Cost
- Financing
- Scheduling
- Lead agency monitoring
- Implementation responsibilities

• A Caltrans Encroachment Permit will be required for any work done within the State right-of-way. Before an encroachment permit can be issued, a completed application, final environmental documentation, and five (5) sets of plans will need to be submitted to the following contact person:

Mr. Bob Cashion, Chief
Maintenance - Permits
Caltrans District 4
P. O. Box 23660
Oakland, CA 94623-0660

Additionally, please be advised that a request for an encroachment permit would render Caltrans a responsible agency with a respect to a project. When a State agency is a responsible agency, negative declarations must be submitted to the Clearinghouse for review by State agencies.

We appreciate the opportunity to work with you on this project and wish to continue close correspondence on its development. Should you have any questions regarding these comments, please feel free to contact Melinda Pagaduan of my staff at (510) 286-5544.

Sincerely,

JOE BROWNE
District Director

By
KIT CURTISS
Senior Transportation Planner

cc: Mark Goss, SCH
Craig Goldblatt, MTC
Patricia Perry, ABAG
Robert McCleary, CCTA

CITY OF CONCORD
1950 Parkside Drive
Concord, California 94519-2578
FAX: (510) 671-3381
M/S 24

Telephone: (510) 671-3162

Concord



February 23, 1994

RECEIVED
FEB 28 1994
Ans'd.....

Mr. Jon Huffman
Urban Futures, Inc.
801 E. Chapman Avenue, Suite 106
Fullerton, CA 92631

Subject: **Notice of Preparation, EIR for Lafayette Redevelopment Project**

Dear Mr. Huffman:

The City of Concord has no comments on the Notice of Preparation for this project. Please sent the City of Concord a copy of the Draft EIR when it is completed. Thank you.

Sincerely,

Janet Homrighausen

Janet Homrighausen, AICP
Associate Planner

JH:mmm

dly\huffman.jh

# *APPENDIX D*

## *NOISE DATA*

*(prepared as part of the*
*Lafayette General Plan Data Base)*

TABLE 3

Location A
Continuous Hourly Noise Measurements
Off Dianne Ct.; Top of Ridge; Exposed to Noise
From SR-24 Traffic

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 2/24/92 | 2:00 pm | 53 | 74 | 45 | 66 | 54 | 48 | 46 |
| | 3:00 pm | 49 | 62 | 44 | 58 | 50 | 48 | 46 |
| | 4:00 pm | 49 | 62 | 44 | 58 | 51 | 48 | 46 |
| | 5:00 pm | 48 | 58 | 44 | 54 | 50 | 48 | 46 |
| | 6:00 pm | 52 | 66 | 46 | 62 | 53 | 50 | 48 |
| | 7:00 pm | 52 | 67 | 43 | 64 | 52 | 49 | 46 |
| | 8:00 pm | 51 | 65 | 44 | 61 | 52 | 49 | 46 |
| | 9:00 pm | 50 | 74 | 45 | 61 | 61 | 48 | 46 |
| | 10:00 pm | 49 | 56 | 44 | 52 | 51 | 48 | 46 |
| | 11:00 pm | 44 | 55 | 38 | 49 | 46 | 44 | 41 |
| 2/25/92 | Midnight | 46 | 63 | 39 | 52 | 48 | 46 | 43 |
| | 1:00 am | 44 | 60 | 37 | 51 | 46 | 42 | 40 |
| | 2:00 am | 46 | 54 | 39 | 52 | 48 | 46 | 42 |
| | 3:00 am | 46 | 54 | 39 | 51 | 48 | 45 | 42 |
| | 4:00 am | 48 | 62 | 39 | 56 | 50 | 46 | 42 |
| | 5:00 am | 51 | 62 | 46 | 60 | 53 | 50 | 48 |
| | 6:00 am | 53 | 60 | 50 | 56 | 55 | 53 | 51 |
| | 7:00 am | 55 | 62 | 50 | 60 | 57 | 54 | 52 |
| | 8:00 am | 54 | 70 | 48 | 66 | 56 | 53 | 50 |
| | 9:00 am | 54 | 66 | 49 | 64 | 56 | 53 | 51 |
| | 10:00 am | 50 | 62 | 46 | 58 | 52 | 49 | 48 |
| | 11:00 am | 53 | 71 | 44 | 65 | 56 | 49 | 47 |
| | 12:00 pm | 50 | 68 | 44 | 60 | 52 | 48 | 46 |
| | 1:00 pm | 50 | 64 | 44 | 61 | 52 | 48 | 46 |
| $L_{dn}$ = 56 dB | | | | | | | | |

Table 3 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 2/25/92 | 2:00 pm | 50 | 66 | 44 | 60 | 52 | 48 | 46 |
| | 3:00 pm | 50 | 70 | 44 | 60 | 50 | 48 | 46 |
| | 4:00 pm | 48 | 60 | 43 | 56 | 50 | 47 | 45 |
| | 5:00 pm | 50 | 61 | 44 | 58 | 50 | 48 | 46 |
| | 6:00 pm | 51 | 66 | 46 | 62 | 52 | 50 | 48 |
| | 7:00 pm | 52 | 65 | 44 | 63 | 53 | 50 | 47 |
| | 8:00 pm | 50 | 59 | 46 | 54 | 52 | 50 | 48 |
| | 9:00 pm | 49 | 56 | 45 | 52 | 50 | 48 | 47 |
| | 10:00 pm | 46 | 61 | 41 | 55 | 48 | 46 | 44 |
| | 11:00 pm | 44 | 53 | 38 | 50 | 46 | 43 | 41 |
| 2/26/92 | Midnight | 42 | 52 | 35 | 48 | 44 | 42 | 38 |
| | 1:00 am | 39 | 48 | 32 | 46 | 42 | 38 | 35 |
| | 2:00 am | 42 | 55 | 34 | 50 | 44 | 40 | 37 |
| | 3:00 am | 42 | 53 | 34 | 50 | 45 | 42 | 38 |
| | 4:00 am | 42 | 52 | 36 | 48 | 44 | 42 | 38 |
| | 5:00 am | 48 | 58 | 40 | 52 | 50 | 48 | 44 |
| | 6:00 am | 50 | 59 | 47 | 56 | 52 | 50 | 48 |
| | 7:00 am | 56 | 66 | 50 | 62 | 60 | 55 | 53 |
| | 8:00 am | 58 | 65 | 55 | 63 | 60 | 58 | 57 |
| | 9:00 am | 53 | 62 | 44 | 59 | 56 | 52 | 48 |
| | 10:00 am | 47 | 57 | 43 | 53 | 49 | 46 | 45 |
| | 11:00 am | 50 | 66 | 43 | 62 | 51 | 47 | 45 |
| | 12:00 pm | 50 | 64 | 44 | 59 | 52 | 48 | 46 |
| | 1:00 pm | 48 | 62 | 42 | 56 | 50 | 47 | 45 |
| $L_{dn}$ = 54 dB | | | | | | | | |

TABLE 4

Location B
Continuous Hourly Noise Measurements
Off Dianne Ct.; South Side of Ridge;
Traffic on SR-24 Audible But Not Visible

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 2/24/92 | 2:00 pm | 48 | 66 | 21 | 60 | 51 | 36 | 34 |
| | 3:00 pm | 46 | 64 | 31 | 60 | 46 | 34 | 32 |
| | 4:00 pm | 46 | 78 | 30 | 60 | 48 | 36 | 32 |
| | 5:00 pm | 40 | 58 | 30 | 53 | 42 | 36 | 32 |
| | 6:00 pm | 48 | 66 | 32 | 63 | 50 | 38 | 35 |
| | 7:00 pm | 50 | 68 | 33 | 65 | 50 | 39 | 36 |
| | 8:00 pm | 47 | 66 | 32 | 62 | 44 | 38 | 36 |
| | 9:00 pm | 40 | 58 | 33 | 51 | 43 | 38 | 36 |
| | 10:00 pm | 38 | 48 | 34 | 44 | 39 | 37 | 36 |
| | 11:00 pm | 36 | 54 | 30 | 45 | 36 | 34 | 32 |
| 2/25/92 | Midnight | 36 | 51 | 30 | 41 | 38 | 34 | 32 |
| | 1:00 am | 34 | 46 | 28 | 40 | 36 | 32 | 30 |
| | 2:00 am | 35 | 44 | 30 | 41 | 38 | 34 | 32 |
| | 3:00 am | 37 | 56 | 30 | 47 | 38 | 34 | 32 |
| | 4:00 am | 36 | 51 | 30 | 41 | 38 | 35 | 32 |
| | 5:00 am | 46 | 66 | 36 | 62 | 42 | 38 | 37 |
| | 6:00 am | 44 | 54 | 39 | 50 | 46 | 44 | 41 |
| | 7:00 am | 48 | 62 | 42 | 58 | 51 | 45 | 44 |
| | 8:00 am | 52 | 71 | 42 | 67 | 54 | 44 | 42 |
| | 9:00 am | 50 | 68 | 41 | 64 | 52 | 44 | 43 |
| | 10:00 am | 46 | 62 | 40 | 58 | 48 | 43 | 42 |
| | 11:00 am | 52 | 73 | 39 | 66 | 54 | 42 | 41 |
| | 12:00 pm | 49 | 70 | 38 | 62 | 52 | 42 | 40 |
| | 1:00 pm | 48 | 64 | 34 | 60 | 51 | 42 | 35 |
| $L_{dn}$ = 49 dB | | | | | | | | |

Table 4 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 2/25/92 | 2:00 pm | 49 | 68 | 32 | 62 | 50 | 36 | 34 |
| | 3:00 pm | 44 | 65 | 31 | 60 | 44 | 36 | 33 |
| | 4:00 pm | 44 | 62 | 31 | 56 | 48 | 36 | 32 |
| | 5:00 pm | 44 | 64 | 31 | 58 | 46 | 36 | 33 |
| | 6:00 pm | 48 | 66 | 36 | 64 | 46 | 40 | 38 |
| | 7:00 pm | 50 | 68 | 36 | 64 | 51 | 40 | 38 |
| | 8:00 pm | 42 | 58 | 34 | 54 | 44 | 38 | 36 |
| | 9:00 pm | 40 | 53 | 34 | 48 | 41 | 38 | 36 |
| | 10:00 pm | 43 | 67 | 31 | 56 | 40 | 36 | 34 |
| | 11:00 pm | 37 | 54 | 29 | 48 | 38 | 33 | 31 |
| 2/26/92 | Midnight | 32 | 45 | 27 | 40 | 34 | 30 | 28 |
| | 1:00 am | 30 | 44 | 27 | 37 | 32 | 29 | 28 |
| | 2:00 am | 32 | 50 | 26 | 46 | 33 | 30 | 28 |
| | 3:00 am | 34 | 50 | 27 | 40 | 37 | 32 | 29 |
| | 4:00 am | 36 | 44 | 28 | 42 | 39 | 36 | 33 |
| | 5:00 am | 40 | 52 | 32 | 50 | 42 | 40 | 36 |
| | 6:00 am | 50 | 65 | 44 | 62 | 50 | 48 | 46 |
| | 7:00 am | 50 | 65 | 44 | 62 | 50 | 48 | 46 |
| | 8:00 am | 50 | 64 | 44 | 62 | 51 | 47 | 46 |
| | 9:00 am | 48 | 62 | 41 | 58 | 50 | 45 | 42 |
| | 10:00 am | 44 | 54 | 38 | 52 | 46 | 43 | 41 |
| | 11:00 am | 50 | 69 | 40 | 64 | 50 | 43 | 41 |
| | 12:00 pm | 48 | 66 | 38 | 60 | 50 | 42 | 40 |
| | 1:00 pm | 44 | 64 | 32 | 55 | 47 | 40 | 34 |
| $L_{dn}$ = 48 dB | | | | | | | | |

TABLE 5

Location C
Continuous Hourly Noise Measurements
At the Right-of-Way of SR-24;
50 Ft. From Near Lane of SR-24

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 2/26/92 | 4:00 pm | 80 | 88 | 72 | 84 | 82 | 80 | 78 |
| | 5:00 pm | 80 | 87 | 74 | 83 | 81 | 80 | 78 |
| | 6:00 pm | 79 | 87 | 74 | 82 | 80 | 78 | 77 |
| | 7:00 pm | 79 | 87 | 68 | 82 | 81 | 79 | 76 |
| | 8:00 pm | 78 | 86 | 61 | 82 | 80 | 77 | 73 |
| | 9:00 pm | 78 | 85 | 66 | 82 | 80 | 77 | 73 |
| | 10:00 pm | 77 | 85 | 64 | 82 | 80 | 76 | 72 |
| | 11:00 pm | 76 | 88 | 58 | 82 | 78 | 74 | 68 |
| 2/27/92 | Midnight | 73 | 85 | 48 | 80 | 77 | 72 | 62 |
| | 1:00 am | 70 | 84 | 44 | 79 | 74 | 66 | 57 |
| | 2:00 am | 69 | 85 | 46 | 80 | 74 | 63 | 53 |
| | 3:00 am | 68 | 84 | 48 | 79 | 73 | 62 | 54 |
| | 4:00 am | 70 | 84 | 50 | 80 | 74 | 64 | 58 |
| | 5:00 am | 74 | 86 | 60 | 82 | 78 | 72 | 66 |
| | 6:00 am | 78 | 86 | 68 | 84 | 81 | 78 | 74 |
| | 7:00 am | 80 | 87 | 71 | 84 | 82 | 80 | 78 |
| | 8:00 am | 80 | 87 | 70 | 84 | 82 | 80 | 78 |
| | 9:00 am | 80 | 91 | 70 | 84 | 82 | 79 | 76 |
| | 10:00 am | 79 | 94 | 68 | 84 | 82 | 79 | 76 |
| | 11:00 am | 79 | 86 | 66 | 84 | 82 | 79 | 76 |
| | 12:00 pm | 79 | 86 | 66 | 84 | 81 | 78 | 76 |
| | 1:00 pm | 79 | 88 | 70 | 84 | 81 | 78 | 76 |
| | 2:00 pm | 80 | 86 | 71 | 84 | 82 | 80 | 77 |
| | 3:00 pm | 80 | 88 | 74 | 84 | 82 | 80 | 78 |
| $L_{dn}$ = 82 dB | | | | | | | | |

Table 5 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 2/27/92 | 4:00 pm | 80 | 88 | 72 | 84 | 82 | 80 | 78 |
| | 5:00 pm | 77 | 86 | 68 | 82 | 80 | 76 | 73 |
| | 6:00 pm | 80 | 84 | 74 | 82 | 81 | 80 | 78 |
| | 7:00 pm | 79 | 92 | 68 | 82 | 80 | 79 | 76 |
| | 8:00 pm | 78 | 90 | 65 | 82 | 80 | 78 | 73 |
| | 9:00 pm | 78 | 86 | 65 | 82 | 80 | 78 | 74 |
| | 10:00 pm | 77 | 86 | 62 | 81 | 80 | 76 | 72 |
| | 11:00 pm | 76 | 92 | 60 | 82 | 78 | 75 | 69 |
| 2/28/92 | Midnight | 74 | 87 | 56 | 80 | 77 | 72 | 63 |
| | 1:00 am | 72 | 86 | 51 | 80 | 76 | 69 | 58 |
| | 2:00 am | 70 | 84 | 46 | 80 | 74 | 65 | 56 |
| | 3:00 am | 69 | 83 | 47 | 80 | 73 | 62 | 54 |
| | 4:00 am | 70 | 84 | 50 | 81 | 74 | 65 | 58 |
| | 5:00 am | 74 | 84 | 59 | 82 | 78 | 72 | 66 |
| | 6:00 am | 78 | 86 | 67 | 84 | 81 | 78 | 72 |
| | 7:00 am | 80 | 86 | 72 | 84 | 82 | 80 | 78 |
| | 8:00 am | 80 | 87 | 71 | 84 | 82 | 80 | 77 |
| | 9:00 am | 80 | 92 | 69 | 88 | 82 | 79 | 76 |
| | 10:00 am | 80 | 98 | 68 | 90 | 81 | 78 | 76 |
| | 11:00 am | 79 | 87 | 70 | 83 | 80 | 78 | 76 |
| | 12:00 pm | 79 | 87 | 68 | 83 | 81 | 78 | 76 |
| | 1:00 pm | 79 | 87 | 68 | 82 | 82 | 79 | 76 |
| | 2:00 pm | 80 | 88 | 72 | 83 | 81 | 80 | 78 |
| | 3:00 pm | 79 | 91 | 67 | 83 | 81 | 79 | 73 |
| $L_{dn}$ = 82 dB | | | | | | | | |

TABLE 6

Location D
Continuous Hourly Noise Measurements
54 Ft. From the Centerline of Mt. Diablo Blvd.;
Corner with 2nd St.; Downtown Area

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 2/26/92 | 4:00 pm | 69 | 84 | 56 | 77 | 72 | 66 | 61 |
| | 5:00 pm | 68 | 83 | 56 | 77 | 72 | 66 | 60 |
| | 6:00 pm | 68 | 82 | 54 | 76 | 71 | 65 | 59 |
| | 7:00 pm | 66 | 79 | 54 | 74 | 70 | 62 | 58 |
| | 8:00 pm | 64 | 76 | 54 | 74 | 69 | 61 | 56 |
| | 9:00 pm | 64 | 79 | 52 | 73 | 68 | 60 | 55 |
| | 10:00 pm | 62 | 78 | 51 | 72 | 66 | 57 | 54 |
| | 11:00 pm | 60 | 80 | 50 | 72 | 64 | 55 | 52 |
| 2/27/92 | Midnight | 58 | 82 | 47 | 70 | 60 | 53 | 50 |
| | 1:00 am | 56 | 73 | 42 | 67 | 57 | 52 | 48 |
| | 2:00 am | 54 | 74 | 42 | 66 | 56 | 50 | 46 |
| | 3:00 am | 56 | 80 | 44 | 69 | 57 | 51 | 48 |
| | 4:00 am | 58 | 80 | 47 | 70 | 59 | 55 | 51 |
| | 5:00 am | 65 | 80 | 54 | 76 | 68 | 62 | 57 |
| | 6:00 am | 66 | 84 | 59 | 75 | 68 | 64 | 62 |
| | 7:00 am | 68 | 82 | 58 | 78 | 72 | 66 | 63 |
| | 8:00 am | 69 | 86 | 53 | 78 | 72 | 67 | 61 |
| | 9:00 am | 68 | 84 | 53 | 78 | 72 | 66 | 58 |
| | 10:00 am | 68 | 84 | 58 | 78 | 72 | 66 | 61 |
| | 11:00 am | 72 | 96 | 57 | 83 | 72 | 66 | 62 |
| | 12:00 pm | 71 | 100 | 55 | 78 | 72 | 66 | 62 |
| | 1:00 pm | 68 | 84 | 58 | 76 | 72 | 66 | 61 |
| | 2:00 pm | 70 | 98 | 58 | 78 | 72 | 66 | 62 |
| | 3:00 pm | 69 | 90 | 59 | 78 | 72 | 66 | 62 |
| $L_{dn}$ = 70 dB | | | | | | | | |

Table 6 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 2/27/92 | 4:00 pm | 69 | 88 | 58 | 77 | 72 | 66 | 61 |
| | 5:00 pm | 68 | 82 | 56 | 76 | 72 | 66 | 62 |
| | 6:00 pm | 68 | 83 | 54 | 76 | 72 | 65 | 58 |
| | 7:00 pm | 66 | 85 | 53 | 74 | 70 | 65 | 58 |
| | 8:00 pm | 65 | 82 | 52 | 74 | 68 | 62 | 56 |
| | 9:00 pm | 64 | 80 | 52 | 74 | 68 | 60 | 55 |
| | 10:00 pm | 63 | 82 | 50 | 72 | 67 | 58 | 54 |
| | 11:00 pm | 60 | 76 | 50 | 72 | 64 | 56 | 52 |
| 2/28/92 | Midnight | 60 | 80 | 47 | 72 | 60 | 52 | 50 |
| | 1:00 am | 57 | 74 | 46 | 70 | 58 | 52 | 50 |
| | 2:00 am | 56 | 74 | 42 | 68 | 56 | 51 | 48 |
| | 3:00 am | 56 | 78 | 42 | 67 | 54 | 50 | 46 |
| | 4:00 am | 59 | 78 | 46 | 72 | 60 | 54 | 50 |
| | 5:00 am | 64 | 80 | 52 | 76 | 67 | 59 | 56 |
| | 6:00 am | 65 | 80 | 56 | 73 | 68 | 62 | 58 |
| | 7:00 am | 68 | 84 | 57 | 78 | 72 | 66 | 62 |
| | 8:00 am | 68 | 86 | 56 | 78 | 72 | 66 | 61 |
| | 9:00 am | 68 | 82 | 56 | 78 | 72 | 66 | 61 |
| | 10:00 am | 68 | 85 | 56 | 76 | 71 | 66 | 60 |
| | 11:00 am | 69 | 88 | 57 | 78 | 72 | 67 | 62 |
| | 12:00 pm | 70 | 85 | 58 | 78 | 72 | 67 | 62 |
| | 1:00 pm | 69 | 83 | 56 | 76 | 72 | 67 | 62 |
| | 2:00 pm | 70 | 96 | 58 | 76 | 72 | 66 | 62 |
| | 3:00 pm | 68 | 86 | 53 | 77 | 72 | 66 | 60 |
| $L_{dn}$ = 70 dB | | | | | | | | |

TABLE 7

Location E
Continuous Hourly Noise Measurements
45 Ft. From the Centerline of Glorietta Blvd.;
North of Coralee Lane

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/25/92 | 2:00 pm | 60 | 73 | 38 | 69 | 64 | 56 | 46 |
| | 3:00 pm | 60 | 74 | 34 | 70 | 64 | 57 | 42 |
| | 4:00 pm | 61 | 84 | 32 | 70 | 65 | 57 | 40 |
| | 5:00 pm | 61 | 78 | 36 | 70 | 65 | 57 | 43 |
| | 6:00 pm | 60 | 80 | 34 | 69 | 64 | 53 | 38 |
| | 7:00 pm | 58 | 74 | 34 | 68 | 63 | 51 | 38 |
| | 8:00 pm | 55 | 72 | 28 | 66 | 60 | 40 | 32 |
| | 9:00 pm | 56 | 78 | 29 | 68 | 62 | 42 | 32 |
| | 10:00 pm | 54 | 79 | 28 | 66 | 56 | 36 | 30 |
| | 11:00 pm | 50 | 72 | 28 | 64 | 50 | 36 | 31 |
| 3/26/92 | Midnight | 50 | 75 | 28 | 65 | 42 | 36 | 30 |
| | 1:00 am | 42 | 67 | 28 | 57 | 38 | 34 | 30 |
| | 2:00 am | 42 | 64 | 28 | 57 | 38 | 33 | 30 |
| | 3:00 am | 47 | 66 | 28 | 64 | 42 | 32 | 29 |
| | 4:00 am | 44 | 69 | 28 | 58 | 40 | 34 | 30 |
| | 5:00 am | 56 | 80 | 30 | 69 | 54 | 40 | 34 |
| | 6:00 am | 56 | 76 | 36 | 67 | 61 | 46 | 40 |
| | 7:00 am | 60 | 79 | 39 | 69 | 65 | 56 | 44 |
| | 8:00 am | 61 | 76 | 38 | 70 | 65 | 58 | 46 |
| | 9:00 am | 60 | 76 | 36 | 71 | 64 | 52 | 42 |
| | 10:00 am | 58 | 74 | 35 | 68 | 63 | 50 | 39 |
| | 11:00 am | 58 | 72 | 36 | 68 | 63 | 52 | 40 |
| | 12:00 pm | 58 | 76 | 37 | 68 | 64 | 51 | 42 |
| | 1:00 pm | 58 | 72 | 37 | 68 | 63 | 52 | 42 |
| $L_{dn}$ = 60 dB | | | | | | | | |

Table 7 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/26/92 | 2:00 pm | 58 | 72 | 35 | 67 | 63 | 54 | 42 |
| | 3:00 pm | 60 | 83 | 38 | 69 | 64 | 55 | 42 |
| | 4:00 pm | 60 | 74 | 39 | 70 | 64 | 56 | 44 |
| | 5:00 pm | 60 | 76 | 35 | 68 | 65 | 58 | 43 |
| | 6:00 pm | 60 | 72 | 36 | 68 | 64 | 56 | 42 |
| | 7:00 pm | 58 | 74 | 38 | 68 | 62 | 51 | 42 |
| | 8:00 pm | 57 | 72 | 33 | 68 | 62 | 46 | 36 |
| | 9:00 pm | 54 | 68 | 34 | 65 | 60 | 42 | 36 |
| | 10:00 pm | 52 | 70 | 32 | 64 | 57 | 42 | 36 |
| | 11:00 pm | 49 | 70 | 30 | 64 | 46 | 38 | 34 |
| 3/27/92 | Midnight | 49 | 78 | 28 | 62 | 39 | 32 | 30 |
| | 1:00 am | 45 | 68 | 28 | 60 | 38 | 32 | 28 |
| | 2:00 am | 45 | 70 | 28 | 60 | 38 | 33 | 29 |
| | 3:00 am | 42 | 68 | 28 | 56 | 38 | 32 | 28 |
| | 4:00 am | 46 | 70 | 28 | 60 | 42 | 34 | 31 |
| | 5:00 am | 50 | 74 | 30 | 64 | 48 | 38 | 31 |
| | 6:00 am | 56 | 76 | 41 | 68 | 60 | 48 | 44 |
| | 7:00 am | 61 | 80 | 40 | 72 | 65 | 56 | 47 |
| | 8:00 am | 61 | 80 | 34 | 70 | 65 | 57 | 43 |
| | 9:00 am | 59 | 77 | 35 | 68 | 64 | 52 | 40 |
| | 10:00 am | 60 | 84 | 34 | 72 | 64 | 52 | 40 |
| | 11:00 am | 70 | 102 | 34 | 70 | 64 | 52 | 38 |
| | 12:00 pm | 60 | 82 | 34 | 70 | 64 | 52 | 38 |
| | 1:00 pm | 59 | 78 | 35 | 68 | 64 | 53 | 39 |
| $L_{dn}$ = 61 dB | | | | | | | | |

TABLE 8

Location F
Continuous Hourly Noise Measurements
90 Ft. From the Centerline of Mt. Diablo Blvd.;
East of El Nido Ranch Rd.

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/25/92 | 2:00 pm | 66 | 78 | 53 | 74 | 70 | 65 | 58 |
| | 3:00 pm | 67 | 78 | 55 | 74 | 70 | 66 | 60 |
| | 4:00 pm | 67 | 76 | 56 | 73 | 70 | 66 | 60 |
| | 5:00 pm | 68 | 75 | 56 | 74 | 70 | 66 | 60 |
| | 6:00 pm | 67 | 77 | 55 | 74 | 70 | 65 | 59 |
| | 7:00 pm | 66 | 78 | 52 | 72 | 68 | 64 | 58 |
| | 8:00 pm | 63 | 76 | 50 | 71 | 67 | 59 | 54 |
| | 9:00 pm | 62 | 74 | 48 | 70 | 67 | 59 | 54 |
| | 10:00 pm | 60 | 74 | 44 | 70 | 64 | 55 | 52 |
| | 11:00 pm | 58 | 73 | 44 | 70 | 62 | 54 | 50 |
| 3/26/92 | Midnight | 56 | 72 | 40 | 68 | 58 | 50 | 46 |
| | 1:00 am | 54 | 76 | 38 | 66 | 54 | 48 | 44 |
| | 2:00 am | 52 | 67 | 39 | 63 | 54 | 50 | 45 |
| | 3:00 am | 53 | 69 | 42 | 66 | 54 | 50 | 46 |
| | 4:00 am | 56 | 76 | 44 | 67 | 56 | 50 | 47 |
| | 5:00 am | 62 | 83 | 48 | 74 | 65 | 56 | 51 |
| | 6:00 am | 64 | 80 | 54 | 76 | 68 | 61 | 57 |
| | 7:00 am | 66 | 78 | 55 | 74 | 70 | 65 | 59 |
| | 8:00 am | 67 | 80 | 54 | 74 | 70 | 66 | 60 |
| | 9:00 am | 67 | 79 | 54 | 75 | 70 | 66 | 58 |
| | 10:00 am | 66 | 78 | 52 | 73 | 70 | 64 | 57 |
| | 11:00 am | 66 | 77 | 53 | 74 | 70 | 64 | 58 |
| | 12:00 pm | 66 | 78 | 53 | 74 | 70 | 65 | 58 |
| | 1:00 pm | 66 | 78 | 54 | 74 | 70 | 65 | 59 |
| $L_{dn}$ = 68 dB | | | | | | | | |

Table 8 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/26/92 | 2:00 pm | 67 | 77 | 54 | 73 | 70 | 66 | 60 |
| | 3:00 pm | 68 | 78 | 55 | 74 | 70 | 66 | 60 |
| | 4:00 pm | 68 | 78 | 58 | 74 | 71 | 66 | 62 |
| | 5:00 pm | 68 | 78 | 55 | 75 | 71 | 67 | 62 |
| | 6:00 pm | 68 | 78 | 56 | 75 | 70 | 66 | 61 |
| | 7:00 pm | 66 | 76 | 53 | 74 | 69 | 63 | 58 |
| | 8:00 pm | 64 | 76 | 50 | 73 | 68 | 60 | 56 |
| | 9:00 pm | 62 | 76 | 51 | 72 | 66 | 59 | 55 |
| | 10:00 pm | 62 | 77 | 50 | 72 | 65 | 57 | 54 |
| | 11:00 pm | 60 | 76 | 46 | 70 | 63 | 55 | 52 |
| 3/27/92 | Midnight | 56 | 75 | 42 | 68 | 58 | 52 | 48 |
| | 1:00 am | 54 | 75 | 38 | 67 | 56 | 50 | 45 |
| | 2:00 am | 52 | 72 | 38 | 62 | 54 | 48 | 42 |
| | 3:00 am | 52 | 74 | 39 | 64 | 54 | 48 | 42 |
| | 4:00 am | 55 | 75 | 39 | 68 | 56 | 50 | 45 |
| | 5:00 am | 60 | 76 | 46 | 73 | 64 | 56 | 51 |
| | 6:00 am | 64 | 82 | 54 | 74 | 68 | 61 | 57 |
| | 7:00 am | 66 | 78 | 54 | 74 | 70 | 65 | 59 |
| | 8:00 am | 67 | 80 | 54 | 74 | 70 | 66 | 59 |
| | 9:00 am | 66 | 82 | 53 | 74 | 70 | 66 | 58 |
| | 10:00 am | 66 | 80 | 50 | 74 | 70 | 64 | 57 |
| | 11:00 am | 67 | 90 | 52 | 74 | 70 | 65 | 57 |
| | 12:00 pm | 66 | 76 | 52 | 74 | 70 | 66 | 58 |
| | 1:00 pm | 66 | 76 | 52 | 74 | 70 | 65 | 58 |
| $L_{dn}$ = 68 dB | | | | | | | | |

TABLE 9

Location G
Continuous Hourly Noise Measurements
60 Ft. From the Centerline of Happy Valley Rd.;
East of Valory Ln.

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/25/92 | 3:00 pm | 60 | 71 | 37 | 68 | 64 | 56 | 44 |
| | 4:00 pm | 62 | 74 | 38 | 70 | 66 | 58 | 43 |
| | 5:00 pm | 60 | 72 | 32 | 68 | 66 | 56 | 41 |
| | 6:00 pm | 58 | 72 | 30 | 68 | 63 | 49 | 38 |
| | 7:00 pm | 56 | 72 | 28 | 68 | 62 | 47 | 42 |
| | 8:00 pm | 54 | 70 | 28 | 66 | 59 | 44 | 40 |
| | 9:00 pm | 53 | 72 | 24 | 66 | 57 | 41 | 29 |
| | 10:00 pm | 51 | 71 | 24 | 65 | 52 | 39 | 27 |
| | 11:00 pm | 48 | 69 | 22 | 63 | 46 | 30 | 24 |
| 3/26/92 | Midnight | 42 | 66 | 22 | 56 | 38 | 32 | 26 |
| | 1:00 am | 42 | 68 | 20 | 48 | 36 | 29 | 24 |
| | 2:00 am | 42 | 69 | 21 | 48 | 35 | 28 | 23 |
| | 3:00 am | 46 | 69 | 22 | 64 | 42 | 28 | 24 |
| | 4:00 am | 46 | 70 | 24 | 60 | 40 | 31 | 26 |
| | 5:00 am | 50 | 68 | 28 | 64 | 50 | 36 | 32 |
| | 6:00 am | 56 | 74 | 34 | 68 | 60 | 44 | 38 |
| | 7:00 am | 58 | 70 | 36 | 68 | 64 | 52 | 41 |
| | 8:00 am | 62 | 75 | 38 | 70 | 66 | 59 | 48 |
| | 9:00 am | 58 | 71 | 34 | 68 | 62 | 50 | 40 |
| | 10:00 am | 60 | 73 | 34 | 70 | 65 | 56 | 44 |
| | 11:00 am | 59 | 76 | 32 | 69 | 64 | 51 | 40 |
| | 12:00 pm | 58 | 74 | 36 | 68 | 63 | 50 | 42 |
| | 1:00 pm | 57 | 73 | 36 | 67 | 62 | 50 | 40 |
| | 2:00 pm | 60 | 72 | 36 | 69 | 64 | 55 | 44 |
| $L_{dn}$ = 59 dB | | | | | | | | |

Table 9 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/26/92 | 3:00 pm | 58 | 72 | 37 | 68 | 64 | 52 | 42 |
| | 4:00 pm | 60 | 74 | 34 | 68 | 64 | 54 | 43 |
| | 5:00 pm | 58 | 73 | 32 | 68 | 63 | 51 | 40 |
| | 6:00 pm | 58 | 72 | 33 | 68 | 63 | 50 | 40 |
| | 7:00 pm | 58 | 74 | 37 | 68 | 62 | 49 | 42 |
| | 8:00 pm | 56 | 72 | 28 | 68 | 60 | 42 | 34 |
| | 9:00 pm | 52 | 72 | 29 | 65 | 56 | 40 | 34 |
| | 10:00 pm | 52 | 70 | 28 | 65 | 54 | 40 | 34 |
| | 11:00 pm | 48 | 70 | 26 | 64 | 43 | 38 | 32 |
| 3/27/92 | Midnight | 47 | 72 | 25 | 62 | 38 | 32 | 28 |
| | 1:00 am | 48 | 72 | 22 | 64 | 38 | 29 | 25 |
| | 2:00 am | 30 | 53 | 22 | 40 | 32 | 26 | 24 |
| | 3:00 am | 40 | 62 | 22 | 55 | 36 | 28 | 24 |
| | 4:00 am | 43 | 70 | 22 | 54 | 40 | 32 | 28 |
| | 5:00 am | 48 | 70 | 27 | 64 | 48 | 36 | 32 |
| | 6:00 am | 54 | 72 | 36 | 67 | 57 | 44 | 39 |
| | 7:00 am | 59 | 73 | 34 | 68 | 64 | 52 | 42 |
| | 8:00 am | 61 | 73 | 35 | 69 | 66 | 58 | 44 |
| | 9:00 am | 58 | 74 | 36 | 68 | 63 | 50 | 40 |
| | 10:00 am | 61 | 73 | 36 | 70 | 66 | 56 | 42 |
| | 11:00 am | 60 | 74 | 36 | 69 | 64 | 54 | 44 |
| | 12:00 pm | 62 | 78 | 39 | 71 | 66 | 53 | 44 |
| | 1:00 pm | 58 | 76 | 38 | 68 | 62 | 50 | 42 |
| | 2:00 pm | 60 | 74 | 38 | 68 | 64 | 57 | 44 |
| $L_{dn}$ = 59 dB | | | | | | | | |

TABLE 10

Location H
Continuous Hourly Noise Measurements
80 Ft. From the Westbound SR-24 Elevated Structure;
180 Ft. From the Centerline of the BART Elevated Structure

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/27/92 | 2:00 pm | 72 | 89 | 64 | 84 | 72 | 70 | 68 |
| | 3:00 pm | 72 | 89 | 64 | 86 | 72 | 70 | 68 |
| | 4:00 pm | 72 | 90 | 66 | 86 | 72 | 70 | 68 |
| | 5:00 pm | 72 | 90 | 65 | 85 | 72 | 70 | 68 |
| | 6:00 pm | 71 | 89 | 64 | 82 | 71 | 70 | 68 |
| | 7:00 pm | 70 | 88 | 62 | 79 | 70 | 68 | 66 |
| | 8:00 pm | 68 | 86 | 61 | 78 | 69 | 67 | 64 |
| | 9:00 pm | 68 | 89 | 60 | 77 | 69 | 66 | 64 |
| | 10:00 pm | 68 | 88 | 58 | 80 | 68 | 66 | 62 |
| | 11:00 pm | 68 | 88 | 58 | 82 | 68 | 64 | 61 |
| 3/28/92 | Midnight | 67 | 88 | 56 | 77 | 66 | 63 | 60 |
| | 1:00 am | 64 | 88 | 56 | 69 | 64 | 60 | 58 |
| | 2:00 am | 61 | 72 | 56 | 69 | 63 | 60 | 57 |
| | 3:00 am | 66 | 74 | 55 | 69 | 63 | 58 | 56 |
| | 4:00 am | 61 | 74 | 56 | 70 | 64 | 60 | 56 |
| | 5:00 am | 67 | 86 | 56 | 78 | 68 | 64 | 60 |
| | 6:00 am | 68 | 86 | 58 | 78 | 70 | 67 | 64 |
| | 7:00 am | 70 | 87 | 60 | 78 | 71 | 68 | 66 |
| | 8:00 am | 70 | 60 | 63 | 79 | 72 | 70 | 68 |
| | 9:00 am | 70 | 86 | 64 | 78 | 72 | 70 | 68 |
| | 10:00 am | 71 | 88 | 63 | 80 | 72 | 70 | 68 |
| | 11:00 am | 70 | 86 | 64 | 80 | 72 | 70 | 68 |
| | 12:00 pm | 70 | 86 | 64 | 79 | 71 | 69 | 67 |
| | 1:00 pm | 70 | 86 | 64 | 78 | 72 | 70 | 68 |
| $L_{dn}$ = 74 dB | | | | | | | | |

Table 10 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/28/92 | 2:00 pm | 70 | 85 | 64 | 80 | 72 | 70 | 67 |
| | 3:00 pm | 70 | 86 | 64 | 80 | 72 | 70 | 67 |
| | 4:00 pm | 70 | 86 | 63 | 78 | 72 | 70 | 68 |
| | 5:00 pm | 70 | 86 | 64 | 78 | 72 | 70 | 68 |
| | 6:00 pm | 70 | 89 | 63 | 78 | 71 | 69 | 67 |
| | 7:00 pm | 69 | 87 | 61 | 78 | 70 | 68 | 65 |
| | 8:00 pm | 68 | 86 | 60 | 78 | 69 | 66 | 64 |
| | 9:00 pm | 68 | 86 | 58 | 78 | 68 | 66 | 64 |
| | 10:00 pm | 68 | 88 | 60 | 77 | 68 | 66 | 64 |
| | 11:00 pm | 68 | 88 | 59 | 78 | 68 | 65 | 62 |
| 3/29/92 | Midnight | 66 | 87 | 56 | 71 | 66 | 63 | 60 |
| | 1:00 am | 64 | 88 | 55 | 68 | 64 | 61 | 58 |
| | 2:00 am | 60 | 69 | 54 | 66 | 62 | 58 | 56 |
| | 3:00 am | 59 | 72 | 54 | 66 | 62 | 57 | 55 |
| | 4:00 am | 60 | 72 | 54 | 67 | 62 | 58 | 55 |
| | 5:00 am | 62 | 74 | 54 | 69 | 66 | 62 | 57 |
| | 6:00 am | 65 | 75 | 56 | 70 | 68 | 64 | 61 |
| | 7:00 am | 66 | 76 | 56 | 72 | 68 | 64 | 61 |
| | 8:00 am | 69 | 88 | 58 | 78 | 70 | 66 | 64 |
| | 9:00 am | 70 | 87 | 60 | 82 | 70 | 68 | 66 |
| | 10:00 am | 70 | 88 | 62 | 84 | 71 | 69 | 66 |
| | 11:00 am | 70 | 87 | 64 | 82 | 71 | 69 | 67 |
| | 12:00 pm | 72 | 88 | 62 | 84 | 71 | 70 | 68 |
| | 1:00 pm | 70 | 88 | 62 | 82 | 70 | 68 | 66 |
| $L_{dn}$ = 72 dB | | | | | | | | |
| 3/29/92 | 2:00 pm | 71 | 90 | 62 | 84 | 71 | 69 | 67 |
| | 3:00 pm | 71 | 90 | 62 | 82 | 70 | 68 | 67 |
| | 4:00 pm | 71 | 89 | 64 | 83 | 71 | 70 | 68 |
| | 5:00 pm | 71 | 88 | 64 | 83 | 71 | 70 | 68 |
| | 6:00 pm | 71 | 88 | 63 | 85 | 70 | 68 | 66 |

Table 10 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/29/92 | 7:00 pm | 70 | 90 | 60 | 83 | 70 | 68 | 66 |
| | 8:00 pm | 70 | 88 | 60 | 83 | 70 | 67 | 64 |
| | 9:00 pm | 68 | 87 | 58 | 83 | 68 | 66 | 63 |
| | 10:00 pm | 68 | 88 | 56 | 84 | 67 | 64 | 60 |
| | 11:00 pm | 68 | 90 | 54 | 84 | 65 | 61 | 56 |
| 3/30/92 | Midnight | 66 | 90 | 53 | 74 | 64 | 58 | 54 |
| | 1:00 am | 64 | 88 | 52 | 70 | 62 | 56 | 54 |
| | 2:00 am | 58 | 72 | 52 | 68 | 61 | 54 | 52 |
| | 3:00 am | 60 | 76 | 52 | 71 | 63 | 56 | 53 |
| | 4:00 am | 66 | 88 | 52 | 75 | 66 | 62 | 56 |
| | 5:00 am | 70 | 87 | 56 | 84 | 72 | 69 | 64 |
| | 6:00 am | 72 | 86 | 68 | 84 | 73 | 71 | 70 |
| | 7:00 am | 72 | 86 | 66 | 84 | 72 | 70 | 69 |
| | 8:00 am | 72 | 86 | 66 | 82 | 72 | 70 | 69 |
| | 9:00 am | 71 | 84 | 62 | 78 | 72 | 70 | 68 |
| | 10:00 am | 71 | 84 | 64 | 77 | 72 | 70 | 68 |
| | 11:00 am | 71 | 90 | 63 | 82 | 72 | 69 | 67 |
| | 12:00 pm | 70 | 84 | 64 | 78 | 72 | 70 | 67 |
| | 1:00 pm | 71 | 87 | 64 | 82 | 72 | 70 | 68 |
| | $L_{dn}$ = 75 dB | | | | | | | |
| | 2:00 pm | 72 | 88 | 64 | 84 | 72 | 70 | 68 |
| | 3:00 pm | 72 | 88 | 63 | 84 | 72 | 70 | 68 |
| | 4:00 pm | 72 | 87 | 64 | 84 | 72 | 70 | 68 |
| | 55:00 pm | 72 | 89 | 64 | 82 | 72 | 70 | 68 |
| | 6:00 pm | 70 | 88 | 62 | 80 | 71 | 60 | 67 |
| | 7:00 pm | 68 | 88 | 59 | 78 | 70 | 66 | 64 |
| | 8:00 pm | 67 | 86 | 56 | 77 | f68 | 64 | 62 |
| | 9:00 pm | 67 | 86 | 57 | 75 | 68 | 65 | 62 |
| | 10:00 pm | 66 | 86 | 56 | 78 | 68 | 64 | 60 |
| | 11:00 pm | 66 | 87 | 53 | 78 | 65 | 61 | 56 |

Table 10 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/31/92 | Midnight | 66 | 87 | 51 | 76 | 64 | 59 | 54 |
| | 1:00 am | 60 | 74 | 50 | 70 | 62 | 56 | 53 |
| | 2:00 am | 60 | 72 | 50 | 70 | 62 | 56 | 52 |
| | 3:00 am | 60 | 75 | 50 | 70 | 64 | 58 | 52 |
| | 4:00 am | 67 | 87 | 52 | 76 | 68 | 63 | 58 |
| | 5:00 am | 72 | 86 | 57 | 84 | 73 | 70 | 65 |
| | 6:00 am | 74 | 86 | 68 | 84 | 74 | 72 | 72 |
| | 7:00 am | 74 | 89 | 64 | 84 | 73 | 72 | 70 |
| | 8:00 am | 72 | 86 | 65 | 84 | 73 | 71 | 69 |
| | 9:00 am | 71 | 88 | 61 | 83 | 72 | 70 | 67 |
| | 10:00 am | 70 | 88 | 58 | 81 | 71 | 68 | 66 |
| | 11:00 am | 68 | 80 | 62 | 76 | 70 | 68 | 66 |
| $L_{dn}$ = 75 dB | | | | | | | | |

TABLE 11

Location I
Continuous Hourly Noise Measurements
Yard Area of the Residence at 3396 Goyak Dr.

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/27/9 | 5:00 pm | 46 | 58 | 36 | 54 | 49 | 44 | 40 |
| | 6:00 pm | 48 | 71 | 40 | 56 | 50 | 44 | 42 |
| | 7:00 pm | 48 | 64 | 38 | 58 | 52 | 44 | 40 |
| | 8:00 pm | 51 | 74 | 37 | 65 | 49 | 42 | 40 |
| | 9:00 pm | 46 | 64 | 38 | 58 | 48 | 42 | 40 |
| | 10:00 pm | 42 | 54 | 36 | 52 | 46 | 40 | 38 |
| | 11:00 pm | 40 | 59 | 34 | 50 | 42 | 38 | 36 |
| 3/28/92 | Midnight | 38 | 53 | 33 | 48 | 40 | 36 | 35 |
| | 1:00 am | 38 | 54 | 34 | 45 | 40 | 36 | 35 |
| | 2:00 am | 35 | 48 | 31 | 42 | 37 | 34 | 32 |
| | 3:00 am | 34 | 56 | 29 | 44 | 35 | 31 | 30 |
| | 4:00 am | 30 | 46 | 27 | 38 | 32 | 30 | 28 |
| | 5:00 am | 41 | 61 | 28 | 53 | 44 | 34 | 29 |
| | 6:00 am | 43 | 64 | 33 | 54 | 46 | 38 | 35 |
| | 7:00 am | 47 | 64 | 32 | 60 | 49 | 41 | 37 |
| | 8:00 am | 48 | 68 | 34 | 59 | 50 | 42 | 38 |
| | 9:00 am | 46 | 64 | 36 | 57 | 50 | 43 | 40 |
| | 10:00 am | 47 | 64 | 38 | 57 | 50 | 44 | 40 |
| | 11:00 am | 54 | 75 | 37 | 68 | 56 | 47 | 40 |
| | 12:00 pm | 48 | 62 | 36 | 56 | 50 | 46 | 40 |
| | 1:00 pm | 50 | 66 | 36 | 63 | 52 | 45 | 40 |
| | 2:00 pm | 50 | 68 | 36 | 61 | 52 | 46 | 40 |
| | 3:00 pm | 54 | 68 | 38 | 65 | 54 | 46 | 44 |
| | 4:00 pm | 50 | 70 | 38 | 64 | 51 | 46 | 41 |
| $L_{dn}$ = 49 dB | | | | | | | | |

Table 11 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/28/92 | 5:00 pm | 45 | 60 | 36 | 55 | 48 | 42 | 38 |
| | 6:00 pm | 45 | 63 | 34 | 56 | 48 | 41 | 36 |
| | 7:00 pm | 44 | 62 | 30 | 55 | 48 | 38 | 34 |
| | 8:00 pm | 40 | 54 | 30 | 50 | 43 | 36 | 34 |
| | 9:00 pm | 42 | 58 | 30 | 55 | 43 | 36 | 33 |
| | 10:00 pm | 40 | 52 | 31 | 50 | 43 | 38 | 34 |
| | 11:00 pm | 42 | 60 | 34 | 50 | 44 | 40 | 38 |
| 3/29/92 | Midnight | 40 | 57 | 32 | 48 | 43 | 40 | 36 |
| | 1:00 am | 38 | 52 | 31 | 46 | 40 | 36 | 33 |
| | 2:00 am | 37 | 53 | 32 | 44 | 39 | 36 | 33 |
| | 3:00 am | 34 | 50 | 29 | 44 | 36 | 33 | 31 |
| | 4:00 am | 34 | 50 | 29 | 41 | 36 | 33 | 31 |
| | 5:00 am | 40 | 55 | 28 | 48 | 44 | 38 | 32 |
| | 6:00 am | 42 | 58 | 34 | 51 | 46 | 40 | 37 |
| | 7:00 am | 44 | 60 | 32 | 54 | 47 | 40 | 36 |
| | 8:00 am | 44 | 58 | 32 | 52 | 48 | 40 | 35 |
| | 9:00 am | 46 | 63 | 32 | 56 | 50 | 41 | 36 |
| | 10:00 am | 46 | 62 | 32 | 56 | 50 | 42 | 38 |
| | 11:00 am | 48 | 65 | 34 | 60 | 52 | 42 | 38 |
| | 12:00 pm | 48 | 70 | 33 | 60 | 49 | 42 | 38 |
| | 1:00 pm | 51 | 70 | 36 | 64 | 54 | 46 | 40 |
| | 2:00 pm | 51 | 69 | 38 | 62 | 54 | 46 | 43 |
| | 3:00 pm | 51 | 68 | 32 | 64 | 52 | 42 | 36 |
| | 4:00 pm | 51 | 83 | 36 | 64 | 52 | 44 | 40 |
| $L_{dn}$ = 48 dB | | | | | | | | |
| | 5:00 pm | 44 | 64 | 34 | 55 | 47 | 42 | 38 |
| | 6:00 pm | 47 | 70 | 32 | 60 | 48 | 41 | 36 |
| | 7:00 pm | 46 | 66 | 30 | 59 | 48 | 38 | 33 |
| | 8:00 pm | 41 | 58 | 30 | 54 | 44 | 34 | 32 |
| | 9:00 pm | 43 | 63 | 30 | 52 | 48 | 36 | 33 |

Table 11 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/29/92 | 10:00 pm | 41 | 58 | 32 | 54 | 43 | 38 | 34 |
| | 11:00 pm | 37 | 53 | 28 | 46 | 40 | 34 | 31 |
| 3/30/92 | Midnight | 41 | 64 | 26 | 58 | 36 | 30 | 28 |
| | 1:00 am | 34 | 58 | 26 | 45 | 34 | 30 | 28 |
| | 2:00 am | 32 | 48 | 25 | 42 | 36 | 30 | 27 |
| | 3:00 am | 30 | 48 | 26 | 38 | 32 | 28 | 27 |
| | 4:00 am | 38 | 62 | 27 | 52 | 34 | 30 | 29 |
| | 5:00 am | 40 | 53 | 30 | 47 | 44 | 36 | 32 |
| | 6:00 am | 44 | 58 | 34 | 54 | 47 | 40 | 38 |
| | 7:00 am | 49 | 72 | 32 | 62 | 50 | 44 | 36 |
| | 8:00 am | 52 | 71 | 34 | 65 | 52 | 45 | 39 |
| | 9:00 am | 50 | 64 | 36 | 60 | 52 | 45 | 40 |
| | 10:00 am | 46 | 61 | 34 | 56 | 48 | 42 | 38 |
| | 11:00 am | 50 | 69 | 31 | 64 | 54 | 44 | 37 |
| | 12:00 pm | 52 | 73 | 32 | 66 | 52 | 43 | 36 |
| | 1:00 pm | 50 | 68 | 30 | 62 | 54 | 43 | 35 |
| | 2:00 pm | 52 | 71 | 32 | 64 | 54 | 44 | 36 |
| | 3:00 pm | 45 | 61 | 30 | 56 | 48 | 40 | 34 |
| | 4:00 pm | 50 | 70 | 30 | 65 | 52 | 41 | 34 |
| | $L_{dn}$ = 49 dB | | | | | | | |
| | 5:00 pm | 44 | 56 | 30 | 54 | 49 | 40 | 34 |
| | 6:00 pm | 48 | 67 | 32 | 60 | 51 | 41 | 36 |
| | 7:00 pm | 51 | 67 | 33 | 64 | 54 | 44 | 37 |
| | 8:00 pm | 44 | 62 | 31 | 58 | 44 | 36 | 33 |
| | 9:00 pm | 41 | 57 | 32 | 52 | 44 | 36 | 34 |
| | 10:00 pm | 42 | 56 | 32 | 54 | 45 | 38 | 34 |
| | 11:00 pm | 46 | 68 | 32 | 61 | 40 | 36 | 34 |
| 3/31/92 | Midnight | 38 | 51 | 32 | 44 | 40 | 36 | 34 |
| | 1:00 am | 35 | 50 | 31 | 42 | 36 | 34 | 32 |
| | 2:00 am | 36 | 50 | 31 | 44 | 38 | 35 | 33 |

Table 11 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/31/92 | 3:00 am | 37 | 53 | 32 | 48 | 37 | 35 | 34 |
| | 4:00 am | 40 | 62 | 34 | 51 | 39 | 37 | 36 |
| | 5:00 am | 43 | 58 | 36 | 50 | 45 | 42 | 37 |
| | 6:00 am | 49 | 64 | 41 | 58 | 52 | 46 | 44 |
| | 7:00 am | 50 | 66 | 42 | 62 | 53 | 47 | 44 |
| | 8:00 am | 52 | 70 | 42 | 64 | 54 | 47 | 44 |
| $L_{dn}$ = 50 dB | | | | | | | | |

TABLE 12

Location J
Continuous Hourly Noise Measurements
75 Ft. From the Centerline of Pleasant Hill Rd.;
12 Ft. High in a Tree; North of Reliez Station Rd.

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/27/92 | 4:00 pm | 70 | 82 | 54 | 77 | 73 | 68 | 61 |
| | 5:00 pm | 70 | 80 | 46 | 77 | 73 | 68 | 60 |
| | 6:00 pm | 68 | 82 | 48 | 76 | 72 | 66 | 58 |
| | 7:00 pm | 66 | 82 | 44 | 75 | 70 | 62 | 53 |
| | 8:00 pm | 64 | 76 | 38 | 74 | 69 | 58 | 46 |
| | 9:00 pm | 64 | 80 | 39 | 74 | 68 | 58 | 47 |
| | 10:00 pm | 63 | 77 | 36 | 73 | 68 | 56 | 44 |
| | 11:00 pm | 62 | 77 | 36 | 73 | 68 | 54 | 40 |
| 3/28/92 | Midnight | 61 | 80 | 34 | 73 | 65 | 48 | 37 |
| | 1:00 am | 58 | 78 | 30 | 71 | 61 | 40 | 34 |
| | 2:00 am | 56 | 76 | 31 | 70 | 55 | 36 | 34 |
| | 3:00 am | 54 | 79 | 28 | 68 | 50 | 33 | 30 |
| | 4:00 am | 50 | 72 | 28 | 65 | 46 | 36 | 29 |
| | 5:00 am | 55 | 77 | 28 | 70 | 56 | 36 | 30 |
| | 6:00 am | 60 | 80 | 33 | 72 | 64 | 48 | 38 |
| | 7:00 am | 62 | 84 | 35 | 73 | 66 | 56 | 43 |
| | 8:00 am | 66 | 84 | 40 | 74 | 70 | 62 | 51 |
| | 9:00 am | 66 | 79 | 42 | 75 | 70 | 63 | 56 |
| | 10:00 am | 67 | 80 | 48 | 75 | 71 | 64 | 58 |
| | 11:00 pm | 68 | 79 | 44 | 76 | 72 | 65 | 57 |
| | 12:00 pm | 68 | 88 | 46 | 76 | 72 | 65 | 58 |
| | 1:00 pm | 68 | 86 | 46 | 76 | 72 | 65 | 57 |
| | 2:00 pm | 68 | 82 | 46 | 76 | 72 | 65 | 56 |
| | 3:00 pm | 68 | 81 | 48 | 76 | 72 | 66 | 58 |
| $L_{dn}$ = 68 dB | | | | | | | | |

Table 12 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/28/92 | 4:00 pm | 68 | 82 | 48 | 76 | 72 | 66 | 58 |
| | 5:00 pm | 68 | 80 | 49 | 75 | 72 | 64 | 57 |
| | 6:00 pm | 66 | 80 | 43 | 75 | 71 | 64 | 56 |
| | 7:00 pm | 65 | 81 | 34 | 74 | 70 | 60 | 50 |
| | 8:00 pm | 64 | 86 | 33 | 74 | 69 | 59 | 46 |
| | 9:00 pm | 64 | 78 | 33 | 73 | 68 | 58 | 46 |
| | 10:00 pm | 64 | 84 | 34 | 74 | 68 | 58 | 46 |
| | 11:00 pm | 63 | 77 | 35 | 73 | 68 | 56 | 44 |
| 3/29/92 | Midnight | 60 | 75 | 38 | 72 | 66 | 52 | 44 |
| | 1:00 am | 58 | 78 | 34 | 72 | 60 | 44 | 40 |
| | 2:00 am | 56 | 78 | 32 | 70 | 57 | 40 | 36 |
| | 3:00 am | 52 | 76 | 31 | 67 | 48 | 36 | 33 |
| | 4:00 am | 50 | 72 | 30 | 66 | 44 | 36 | 32 |
| | 5:00 am | 54 | 78 | 31 | 68 | 53 | 40 | 34 |
| | 6:00 am | 59 | 81 | 36 | 72 | 61 | 46 | 40 |
| | 7:00 am | 60 | 81 | 34 | 72 | 64 | 52 | 38 |
| | 8:00 am | 64 | 83 | 34 | 74 | 68 | 58 | 46 |
| | 9:00 am | 65 | 78 | 37 | 74 | 70 | 61 | 52 |
| | 10:00 am | 66 | 81 | 39 | 75 | 70 | 62 | 54 |
| | 11:00 pm | 66 | 79 | 44 | 74 | 70 | 64 | 56 |
| | 12:00 pm | 68 | 84 | 38 | 75 | 71 | 64 | 57 |
| | 1:00 pm | 67 | 82 | 44 | 75 | 71 | 64 | 56 |
| | 2:00 pm | 67 | 80 | 44 | 75 | 71 | 64 | 56 |
| | 3:00 pm | 68 | 84 | 43 | 76 | 72 | 65 | 56 |
| $L_{dn}$ = 68 dB | | | | | | | | |
| | 4:00 pm | 67 | 78 | 47 | 75 | 72 | 64 | 56 |
| | 5:00 pm | 68 | 82 | 44 | 76 | 72 | 64 | 55 |
| | 6:00 pm | 66 | 77 | 41 | 74 | 71 | 62 | 53 |
| | 7:00 pm | 66 | 78 | 36 | 74 | 70 | 61 | 48 |
| | 8:00 pm | 65 | 84 | 36 | 74 | 69 | 60 | 50 |

Table 12 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/29/92 | 9:00 pm | 63 | 76 | 34 | 72 | 68 | 57 | 45 |
| | 10:00 pm | 62 | 80 | 33 | 73 | 66 | 52 | 40 |
| | 11:00 pm | 60 | 79 | 30 | 71 | 64 | 46 | 37 |
| 3/30/92 | Midnight | 57 | 80 | 26 | 70 | 58 | 36 | 30 |
| | 1:00 am | 54 | 74 | 26 | 70 | 48 | 34 | 30 |
| | 2:00 am | 48 | 72 | 26 | 63 | 44 | 34 | 29 |
| | 3:00 am | 53 | 80 | 26 | 66 | 44 | 32 | 27 |
| | 4:00 am | 52 | 74 | 27 | 66 | 52 | 34 | 30 |
| | 5:00 am | 58 | 77 | 34 | 70 | 62 | 48 | 38 |
| | 6:00 am | 64 | 80 | 36 | 75 | 68 | 60 | 46 |
| | 7:00 am | 68 | 86 | 48 | 76 | 72 | 64 | 58 |
| | 8:00 am | 68 | 82 | 46 | 77 | 72 | 66 | 60 |
| | 9:00 am | 68 | 84 | 44 | 77 | 72 | 64 | 57 |
| | 10:00 am | 67 | 81 | 42 | 76 | 72 | 64 | 56 |
| | 11:00 am | 68 | 82 | 46 | 76 | 72 | 65 | 56 |
| | 12:00 pm | 68 | 81 | 46 | 77 | 72 | 66 | 57 |
| | 1:00 pm | 68 | 84 | 50 | 76 | 72 | 66 | 57 |
| | 2:00 pm | 68 | 84 | 46 | 77 | 72 | 66 | 60 |
| | 3:00 pm | 69 | 80 | 49 | 76 | 72 | 66 | 58 |
| | $L_{dn}$ 68 dB | | | | | | | |
| | 4:00 pm | 70 | 82 | 46 | 76 | 73 | 68 | 60 |
| | 5:00 pm | 70 | 84 | 50 | 76 | 74 | 68 | 60 |
| | 6:00 pm | 68 | 78 | 44 | 76 | 72 | 66 | 56 |
| | 7:00 pm | 66 | 84 | 40 | 75 | 70 | 62 | 52 |
| | 8:00 pm | 64 | 82 | 32 | 74 | 68 | 58 | 46 |
| | 9:00 pm | 64 | 81 | 34 | 74 | 69 | 58 | 46 |
| | 10:00 pm | 63 | 78 | 34 | 73 | 68 | 56 | 43 |
| | 11:00 pm | 58 | 77 | 34 | 72 | 62 | 46 | 38 |
| 3/31/92 | Midnight | 56 | 76 | 32 | 71 | 56 | 41 | 36 |
| | 1:00 am | 54 | 79 | 31 | 68 | 52 | 38 | 34 |

Table 12 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/31/92 | 2:00 am | 50 | 76 | 30 | 65 | 44 | 35 | 32 |
| | 3:00 am | 50 | 77 | 31 | 63 | 40 | 35 | 32 |
| | 4:00 am | 52 | 74 | 33 | 66 | 50 | 39 | 36 |
| | 5:00 am | 60 | 82 | 35 | 72 | 62 | 48 | 38 |
| | 6:00 am | 65 | 88 | 44 | 76 | 68 | 60 | 51 |
| | 7:00 am | 68 | 82 | 46 | 77 | 72 | 64 | 58 |
| | 8:00 am | 68 | 84 | 52 | 76 | 72 | 66 | 60 |
| $L_{dn}$ = 68 dB | | | | | | | | |

TABLE 13

Location K
Continuous Hourly Noise Measurements
Backyard of Residence at 1000 Hawthorne Ln.;
Top of the Ridge Overlooking SR-4 and BART

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/27/9 | 5:00 pm | 54 | 81 | 50 | 62 | 55 | 54 | 52 |
| | 6:00 pm | 54 | 64 | 50 | 61 | 56 | 54 | 52 |
| | 7:00 pm | 53 | 65 | 49 | 60 | 55 | 52 | 51 |
| | 8:00 pm | 53 | 66 | 48 | 62 | 54 | 52 | 50 |
| | 9:00 pm | 52 | 70 | 48 | 59 | 53 | 51 | 50 |
| | 10:00 pm | 52 | 65 | 48 | 57 | 53 | 51 | 50 |
| | 11:00 pm | 51 | 63 | 46 | 58 | 52 | 50 | 48 |
| 3/28/92 | Midnight | 50 | 68 | 44 | 56 | 51 | 48 | 46 |
| | 1:00 am | 47 | 63 | 40 | 54 | 48 | 46 | 44 |
| | 2:00 am | 47 | 56 | 38 | 52 | 49 | 46 | 44 |
| | 3:00 am | 44 | 54 | 35 | 50 | 47 | 44 | 40 |
| | 4:00 am | 45 | 54 | 36 | 50 | 48 | 44 | 40 |
| | 5:00 am | 46 | 60 | 38 | 54 | 49 | 46 | 42 |
| | 6:00 am | 51 | 65 | 44 | 56 | 52 | 50 | 48 |
| | 7:00 am | 54 | 68 | 48 | 63 | 55 | 52 | 50 |
| | 8:00 am | 54 | 63 | 50 | 59 | 56 | 54 | 52 |
| | 9:00 am | 54 | 65 | 51 | 59 | 56 | 54 | 52 |
| | 10:00 am | 54 | 65 | 49 | 60 | 56 | 54 | 52 |
| | 11:00 am | 54 | 67 | 48 | 62 | 56 | 54 | 52 |
| | 12:00 pm | 54 | 63 | 51 | 60 | 56 | 54 | 52 |
| | 1:00 pm | 55 | 67 | 51 | 63 | 56 | 54 | 52 |
| | 2:00 pm | 55 | 66 | 51 | 60 | 56 | 54 | 53 |
| | 3:00 pm | 56 | 66 | 52 | 61 | 57 | 56 | 54 |
| | 4:00 pm | 56 | 68 | 52 | 64 | 58 | 56 | 55 |
| $L_{dn}$ = 57 dB | | | | | | | | |

Table 13 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/28/92 | 5:00 pm | 56 | 68 | 52 | 62 | 57 | 55 | 54 |
| | 6:00 pm | 56 | 70 | 52 | 62 | 57 | 56 | 54 |
| | 7:00 pm | 54 | 66 | 50 | 60 | 56 | 54 | 52 |
| | 8:00 pm | 53 | 64 | 50 | 60 | 54 | 53 | 52 |
| | 9:00 pm | 53 | 68 | 49 | 60 | 54 | 52 | 51 |
| | 10:00 pm | 52 | 62 | 49 | 58 | 54 | 52 | 51 |
| | 11:00 pm | 52 | 64 | 48 | 57 | 53 | 52 | 50 |
| 3/29/92 | Midnight | 52 | 63 | 47 | 58 | 54 | 51 | 49 |
| | 1:00 am | 52 | 68 | 44 | 60 | 55 | 51 | 48 |
| | 2:00 am | 48 | 54 | 42 | 53 | 50 | 48 | 45 |
| | 3:00 am | 46 | 56 | 36 | 52 | 49 | 46 | 42 |
| | 4:00 am | 44 | 51 | 36 | 50 | 47 | 44 | 40 |
| | 5:00 am | 48 | 60 | 39 | 56 | 50 | 47 | 44 |
| | 6:00 am | 50 | 57 | 46 | 54 | 52 | 50 | 48 |
| | 7:00 am | 52 | 72 | 46 | 59 | 52 | 50 | 48 |
| | 8:00 am | 50 | 59 | 45 | 56 | 52 | 49 | 47 |
| | 9:00 am | 54 | 65 | 48 | 60 | 54 | 52 | 50 |
| | 10:00 am | 52 | 66 | 48 | 60 | 54 | 52 | 50 |
| | 11:00 am | 54 | 65 | 49 | 60 | 56 | 53 | 51 |
| | 12:00 pm | 56 | 74 | 50 | 66 | 57 | 54 | 52 |
| | 1:00 pm | 56 | 74 | 52 | 66 | 57 | 55 | 54 |
| | 2:00 pm | 561 | 70 | 51 | 63 | 57 | 54 | 54 |
| | 3:00 pm | 55 | 68 | 51 | 63 | 56 | 54 | 53 |
| | 4:00 pm | 55 | 68 | 52 | 62 | 56 | 54 | 54 |
| $L_{dn}$ = 58 dB | | | | | | | | |
| | 5:00 pm | 55 | 65 | 52 | 61 | 56 | 54 | 53 |
| | 6:00 pm | 55 | 68 | 52 | 62 | 56 | 54 | 53 |
| | 7:00 pm | 54 | 66 | 50 | 62 | 55 | 54 | 52 |
| | 8:00 pm | 53 | 66 | 49 | 61 | 54 | 52 | 51 |
| | 9:00 pm | 54 | 66 | 48 | 60 | 54 | 53 | 51 |

Table 13 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/29/92 | 10:00 pm | 51 | 62 | 46 | 58 | 52 | 50 | 48 |
| | 11:00 pm | 52 | 68 | 46 | 62 | 54 | 50 | 48 |
| 3/30/92 | Midnight | 50 | 64 | 44 | 60 | 52 | 50 | 47 |
| | 1:00 am | 49 | 70 | 36 | 60 | 49 | 45 | 42 |
| | 2:00 am | 44 | 53 | 33 | 48 | 46 | 42 | 39 |
| | 3:00 am | 44 | 52 | 36 | 49 | 46 | 42 | 40 |
| | 4:00 am | 47 | 64 | 38 | 56 | 49 | 46 | 42 |
| | 5:00 am | 51 | 62 | 45 | 57 | 52 | 50 | 47 |
| | 6:00 am | 54 | 63 | 50 | 60 | 56 | 54 | 52 |
| | 7:00 am | 57 | 70 | 51 | 65 | 59 | 56 | 53 |
| | 8:00 am | 59 | 75 | 55 | 68 | 60 | 58 | 56 |
| | 9:00 am | 58 | 68 | 54 | 62 | 59 | 58 | 57 |
| | 10:00 am | 58 | 73 | 54 | 62 | 58 | 57 | 56 |
| | 11:00 am | 57 | 72 | 54 | 64 | 58 | 56 | 56 |
| | 12:00 pm | 58 | 71 | 54 | 66 | 58 | 57 | 56 |
| | 1:00 pm | 58 | 68 | 54 | 62 | 59 | 57 | 56 |
| | 2:00 pm | 58 | 70 | 54 | 66 | 59 | 58 | 56 |
| | 3:00 pm | 58 | 68 | 55 | 62 | 59 | 58 | 57 |
| | 4:00 pm | 58 | 73 | 56 | 66 | 59 | 58 | 57 |
| | $L_{dn}$ = 58 dB | | | | | | | |
| | 5:00 pm | 58 | 66 | 56 | 64 | 59 | 58 | 56 |
| | 6:00 pm | 58 | 68 | 55 | 66 | 59 | 58 | 56 |
| | 7:00 pm | 58 | 71 | 52 | 68 | 58 | 56 | 54 |
| | 8:00 pm | 54 | 64 | 51 | 60 | 56 | 54 | 52 |
| | 9:00 pm | 54 | 68 | 50 | 62 | 56 | 54 | 52 |
| | 10:00 pm | 55 | 68 | 48 | 62 | 56 | 54 | 52 |
| | 11:00 pm | 52 | 68 | 46 | 60 | 54 | 52 | 50 |
| 3/31/92 | Midnight | 50 | 64 | 40 | 58 | 52 | 50 | 47 |
| | 1:00 am | 49 | 66 | 36 | 58 | 50 | 48 | 44 |
| | 2:00 am | 46 | 58 | 34 | 53 | 49 | 46 | 42 |

Table 13 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/31/92 | 3:00 am | 47 | 60 | 36 | 54 | 50 | 46 | 42 |
| | 4:00 am | 50 | 64 | 42 | 56 | 52 | 50 | 46 |
| | 5:00 am | 56 | 70 | 48 | 61 | 58 | 56 | 51 |
| | 6:00 am | 57 | 70 | 54 | 62 | 58 | 56 | 56 |
| | 7:00 am | 56 | 66 | 52 | 64 | 58 | 56 | 54 |
| | 8:00 am | 56 | 72 | 50 | 64 | 56 | 54 | 52 |
| | 9:00 am | 59 | 80 | 50 | 74 | 56 | 53 | 52 |
| | 10:00 am | 54 | 70 | 48 | 62 | 56 | 52 | 50 |
| $L_{dn}$ = 60 dB | | | | | | | | |

TABLE 14

Location L
Continuous Hourly Noise Measurements
70 Ft. From the Centerline of Pleasant Hill Road

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 3/31/92 | 9:00 am | 68 | 76 | 48 | 74 | 71 | 67 | 58 |
| | 10:00 am | 68 | 88 | 44 | 75 | 70 | 66 | 57 |
| | 11:00 am | 68 | 84 | 46 | 76 | 70 | 66 | 57 |
| | 12:00 pm | 68 | 80 | 45 | 74 | 70 | 66 | 58 |
| | 1:00 pm | 68 | 82 | 45 | 74 | 70 | 66 | 58 |
| | 2:00 pm | 68 | 82 | 47 | 74 | 70 | 66 | 58 |
| | 3:00 pm | 68 | 83 | 46 | 76 | 72 | 68 | 62 |
| | 4:00 pm | 70 | 87 | 44 | 76 | 72 | 70 | 62 |
| | 5:00 pm | 70 | 79 | 44 | 74 | 72 | 70 | 64 |
| | 6:00 pm | 70 | 82 | 46 | 75 | 72 | 69 | 62 |
| | 7:00 pm | 68 | 79 | 46 | 74 | 71 | 66 | 56 |
| | 8:00 pm | 65 | 79 | 43 | 72 | 69 | 63 | 50 |
| | 9:00 pm | 64 | 74 | 40 | 72 | 68 | 63 | 50 |
| | 10:00 pm | 64 | 82 | 36 | 73 | 68 | 60 | 46 |
| | 11:00 pm | 60 | 80 | 34 | 70 | 66 | 50 | 38 |
| 4/1/92 | Midnight | 57 | 74 | 32 | 70 | 62 | 40 | 34 |
| | 1:00 am | 54 | 70 | 30 | 67 | 57 | 36 | 32 |
| | 2:00 am | 54 | 78 | 29 | 68 | 51 | 34 | 30 |
| | 3:00 am | 53 | 74 | 30 | 66 | 53 | 36 | 32 |
| | 4:00 am | 56 | 73 | 33 | 66 | 61 | 44 | 36 |
| | 5:00 am | 63 | 78 | 37 | 72 | 68 | 60 | 44 |
| | 6:00 am | 68 | 78 | 47 | 74 | 71 | 67 | 60 |
| | 7:00 am | 67 | 82 | 50 | 76 | 70 | 65 | 60 |
| | 8:00 am | 68 | 83 | 46 | 76 | 70 | 67 | 60 |
| $L_{dn}$ = 70 dB | | | | | | | | |

Table 14 (cont'd)

| Date | Hour Beginning | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{01}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|---|---|---|---|---|---|---|---|---|
| 4/1/92 | 9:00 am | 68 | 82 | 44 | 75 | 70 | 66 | 58 |
| | 10:00 am | 67 | 81 | 46 | 74 | 70 | 66 | 57 |
| | 11:00 am | 68 | 81 | 46 | 76 | 70 | 66 | 57 |
| | 12:00 pm | 68 | 83 | 45 | 74 | 70 | 66 | 58 |
| | 1:00 pm | 68 | 80 | 42 | 76 | 71 | 66 | 58 |
| | 2:00 pm | 68 | 83 | 44 | 76 | 70 | 66 | 58 |
| | 3:00 pm | 68 | 80 | 44 | 76 | 72 | 68 | 60 |
| | 4:00 pm | 70 | 81 | 46 | 76 | 72 | 70 | 63 |
| | 5:00 pm | 70 | 79 | 46 | 74 | 72 | 70 | 62 |
| | 6:00 pm | 69 | 84 | 46 | 74 | 72 | 69 | 60 |
| | 7:00 pm | 67 | 80 | 44 | 73 | 70 | 66 | 56 |
| | 8:00 pm | 66 | 77 | 42 | 72 | 70 | 64 | 52 |
| | 9:00 pm | 65 | 75 | 42 | 72 | 69 | 64 | 50 |
| | 10:00 pm | 63 | 76 | 38 | 71 | 68 | 60 | 46 |
| | 11:00 pm | 60 | 74 | 34 | 70 | 66 | 50 | 38 |
| 4/2/92 | Midnight | 58 | 73 | 32 | 69 | 63 | 42 | 35 |
| | 1:00 am | 55 | 77 | 29 | 67 | 59 | 36 | 32 |
| | 2:00 am | 55 | 78 | 28 | 68 | 57 | 35 | 30 |
| | 3:00 am | 50 | 75 | 28 | 66 | 50 | 34 | 30 |
| | 4:00 am | 56 | 70 | 30 | 67 | 61 | 40 | 34 |
| | 5:00 am | 63 | 76 | 34 | 72 | 68 | 59 | 42 |
| | 6:00 am | 68 | 78 | 44 | 74 | 71 | 66 | 59 |
| | 7:00 am | 67 | 78 | 49 | 74 | 70 | 65 | 60 |
| | 8:00 am | 67 | 80 | 48 | 74 | 70 | 66 | 60 |
| $L_{dn}$ = 70 dB | | | | | | | | |

TABLE 15

Summary of Results From the
15-Minute Noise Measurements

| Location | Roadway | Distance to Centerline (ft.) | Date | Time Starting | $L_{eq}$ | $L_{max}$ | Estimated $L_{dn}$ |
|---|---|---|---|---|---|---|---|
| 1 | Glenside Dr. | 45 | 3/27/92 | 8:20 am | 63 | 70 | 65 |
| 2 | St. Mary's Rd. | 100 | 3/27/92 | 8:51 am | 58 | 72 | 59 |
| 3 | St. Mary's Rd. | 50 | 3/27/92 | 9:20 am | 63 | 74 | 65 |
| 4 | Moraga Rd. | 50 | 3/27/92 | 9:47 am | 67 | 80 | 69 |
| 5 | Moraga Rd. | 50 | 3/27/92 | 10:22 am | 65 | 77 | 67 |
| 6 | Moraga Rd. | 50 | 3/27/92 | 10:44 am | 66 | 84 | 68 |
| 7 | Moraga Rd. | 70 | 3/27/92 | 11:10 am | 67 | 77 | 69 |
| 8 | Moraga Blvd. | 50 | 3/27/92 | 12:10 pm | 54 | 66 | 56 |
| 9 | Sierra Rd. | 50 | 3/27/92 | 12:45 pm | 52 | 62 | 55 |
| 10 | Deer Hill Rd. | 45 | 3/27/92 | 1:18 pm | 72 | 80 | 75 |
| 11 | (see comments) | -- | 3/31/92 | 10:10 am | 40 | 49 | 40-45 |
| 12 | Reliez Valley Rd. | 45 | 4/2/92 | 9:15 am | 57 | 68 | 62 |
| 13 | Mt. Diablo Blvd. | 63 | 4/2/92 | 9:40 am | 64 | 76 | 69 |
| 14 | El Nido Ranch Rd. | 50 | 4/2/92 | 10:10 am | 60 | 71 | 63 |
| 15 | Upper Happy Valley Rd. | 30 | 4/2/92 | 10:35 am | 60 | 74 | 60 |

Comments:

Location 1: Near intersection of Glenside Dr. with Glenside Circle; typical residential setback; Glenside Dr. traffic is the dominant noise source (239 cars and 1 Medium Truck [MT]); also two jets at 57 and 58 dBA.

Location 2: South of the intersection of St. Mary's Rd. and Burton Vista Ct.; setback of adjacent residence to St. Mary's Rd.; mostly noise from traffic on St. Mary's Rd. (101 cars, 1 MT, 2 Heavy Trucks [HT], and 1 bus); two jets at 54 and 59 dBA, and one helicopter at 54 dBA.

Table 15 (cont'd)

Location 3: Setback of school grounds and residences adjacent to St. Mary's Rd.; east of Avalon Ave.; traffic on St. Mary's Rd. is the dominant noise source (132 cars, 3 MT and 4 HT); also three jets at 53, 62 and 64 dBA.

Location 4: West side of intersection of Moraga Rd. and Madrone Dr.; exclusively noise from traffic on Moraga Rd. (243 cars, 1 MT and 2 HT).

Location 5: At the intersection of Moraga Rd. and Old Jonas HIll Rd.; typical setback of residences fronting Moraga Rd.; Moraga Rd. traffic is the major noise source (249 cars, 3 motorcycles, 5 MT and 5 HT); one single-engine plane at 55 dBA.

Location 6: At the intersection of Moraga Rd. and Rowe Place; setback of residences adjacent to Moraga Rd.; Moraga Rd. traffic is the major noise source (303 cars, 4 MT, 4 HT and 1 bus); also one jet at 58 dBA.

Location 7: East side of intersection of Moraga Rd. and Brook St.; setback of apartments and classrooms of the Lafayette School to Moraga Rd.; exclusively noise from traffic on Moraga Rd. (445 cars, 5 MT, 6 HT and 1 bus).

Location 8: Intersection of Moraga Blvd. and 4th St.; typical residential setback; local street noise (28 cars and 2 motorcycles on Moraga Blvd.) and noise of distant traffic on SR-24 (43-46 dBA).

Location 9: North side of intersection of Sierra Rd. and Sessions Rd.; on the slopes of the ridge on the north side of SR-24; some local street noise (12 cars on Sierra Rd.); mostly steady noise at 49-54 dBA emanating from traffic on SR-24.

Location 10: North side of intersection of Deer Hill Rd. and Brown Ave.; 100 ft. from the elevated structure of SR-24; mostly steady SR-24 traffic noise (69-74 dBA); BART train noise at 80 dBA during passbys; noise exposure of several existing residences.

Location 11: On the south side of the ridge south of SR-24; off Hawthorne Ln.; SR-24 traffic not audible; background noises consist of distant voices of children on the school grounds (30-40 dBA), some construction noise (39-43 dBA), two jets at high altitudes (45 and 47 dBA), and a siren (49 dBA).

Location 12: Near the intersection of Reliez Valley Rd. and Rowland Dr.; Noise from local traffic on Reliez Valley Rd. (38 cars); two jets flying at high altitudes generated maximum noise levels of 50 and 53 dBA; noise levels recorded are representative of the exposure of residences adjacent to Reliez Valley Rd.

Table 15 (cont'd)

Location 13: South side of Mt. Diablo Blvd.; near intersection with Brown Ave.; mostly traffic noise from Diablo Blvd. (261 cars, 2 MT, 2 HT and 4 motorcyles); on jet at 64 dBA; noise exposure is typical of buildings adjacent to Mt. Diablo Blvd.

Location 14: North side of SR-24; intersection of El Nido Ranch Rd. and Sunnyhill Rd.; SR-24 traffic is the major noise source; noise from traffic on El Nido Ranch Rd. much less significant (14 cars, 1 HT); one single engine plane at 63 dBA; setback of homes ajdacent to Frwy.; intervening ridge top provides substantial shielding of Frwy. noise.

Location 15: Southeast corner of Upper Happy Valley Rd., and Los Arabis Dr.; mostly traffic noise from Upper Happy Valley Rd. (65 cars, 1 MT and 1 bus); one single engine plane at 57 dBA; typical residential setback to Upper Happy Valley Rd.

TABLE 16

Existing (1991) State Route 24
Noise Levels

| | | | | $L_{dn}$ Contour Distance (ft.) From Roadway Centerline | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ADT | SPEED | % Medium Trucks | % Heavy Trucks | 80 | 75 | 70 | 65 | 60 | 55 |
| 155,000 | 60 | 2 | 1 | 200 | 440 | 950 | 1750 | 3300 | 5200 |

TABLE 17

Existing (1992) $L_{dn}$ Noise Contours
Along Major Roadways in Lafayette

| Roadway | ADT | SPEED | % Medium Trucks | % Heavy Trucks | $L_{dn}$ Contour Distance (ft.) from Roadway Centerline | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 70 | 65 | 60 | 55 |
| **ACALANES RD.** | 7,100 | 30 | 0.5 | 0.1 | -- | -- | 70 | 150 |
| **DEER HILL RD.** | 9,500 | 45 | 1.0 | 0.5 | 30 | 100 | 210 | 450 |
| **FIRST ST.** | 21,000 | 30 | 0.5 | 1.0 | 30 | 90 | 190 | 420 |
| **GLENSIDE DR.** | 12,000 | 30 | 0.5 | 1.0 | -- | 40 | 80 | 180 |
| **GLORIETTA BLVD.** | 7,100 | 30 | 0.5 | 0.1 | -- | -- | 70 | 150 |
| **HAPPY VALLEY RD.** | 8,000 | 30 | 0.5 | 0.1 | -- | -- | 80 | 170 |
| **MORAGA RD. -** | | | | | | | | |
| Mt. Diablo - St. Mary's | -- | 30 | 1.0 | 0.5 | 110 | 110 | 240 | 510 |
| Southern City Limit | -- | 35 | 1.0 | 0.5 | 30 | 80 | 170 | 370 |
| **MT. DIABLO BLVD. -** | | | | | | | | |
| Acalanes - Oak Hill Rd. | 17,700 | 45 | 1.0 | 0.5 | 60 | 150 | 320 | 690 |
| Oak Hill Rd. - First St. | 21,400 | 40 | 1.5 | 0.5 | 50 | 140 | 300 | 650 |
| **OAK HILL RD.** | 13,500 | 30 | 1.0 | 0.5 | -- | 50 | 130 | 280 |
| **PLEASANT HILL RD. -** | | | | | | | | |
| North City Limit Deer Hill Rd. | 40,600 | 40 | 1.0 | 0.5 | 100 | 210 | 450 | 970 |
| Deer Hill Rd. - SR-24 | 36,600 | 35 | 1.0 | 0.5 | 60 | 160 | 340 | 730 |
| South of SR-24 | 18,000 | 40 | 1.0 | 0.5 | 40 | 120 | 260 | 560 |
| **RELIEZ STATION** | 12,400 | 30 | 0.5 | 0.1 | -- | 40 | 90 | 200 |

Table 17 (cont.)

| Roadway | ADT | SPEED | % Medium Trucks | % Heavy Trucks | $L_{dn}$ Contour Distance (ft.) from Roadway Centerline | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 70 | 65 | 60 | 55 |
| **RELIEZ VALLEY RD.** | 5,300 | 35 | 0.5 | 0.1 | – | – | 80 | 170 |
| **STANLEY BLVD.** | 7,200 | 35 | 0.5 | 0.1 | – | – | 100 | 215 |
| **ST. MARY'S RD.** | 10,800 | 35 | 1.0 | 0.5 | – | 60 | 150 | 320 |
| **UPPER HAPPY VALLEY RD.** | 7,100 | 30 | 0.5 | 0.1 | – | – | 70 | 150 |

## *APPENDIX E*

## *NOTICE OF COMPLETION*

## NOTICE OF COMPLETION

State of California
Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

Project Title
Draft Environmental Impact Report for the Lafayette Redevelopment Project (SCH #94033001)

Project Location - Specific
See attached.

Project Location - City
City of Lafayette

Project Location - County
Contra Costa County

Description of Nature, Purpose, and Beneficiaries of Project
See attached.

Lead Agency
Lafayette Redevelopment Agency

Address Where Copy of EIR is Available
City Clerks Office, City Hall, 3675 Mt. Diablo Blvd., Lafayette
Lafayette Public Library, 952 Moraga Blvd., Lafayette

Review Period
September 14, 1994 through October 28, 1994

Contact Person
Charles G. Kovac, AICP
Urban Futures, Inc.
3111 N. Tustin Ave., Suite 230
Orange, CA 92665
(714) 283-9334

## PROJECT DESCRIPTION

The Lafayette Redevelopment Agency (the "Agency") has prepared a Program Environmental Impact Report (EIR) for the proposed Lafayette Redevelopment Project (the "Plan" or "Project").

### Project Objective

The primary objective of the Project is to eliminate blight in the proposed Project Area (see Figure 1). The Agency will undertake a variety of activities designed to eliminate the blight conditions which include, but are not limited to, the following: the construction, reconstruction and improvement of structures, public walks, infrastructure improvements, such as drainage and circulation improvements, and development assistance programs such as land write-downs and low-interest loans for commercial and residential development and rehabilitation projects; this list of possible actions is for discussion purposes only. The possible actions are not proposed projects at this time, but only possible actions that may be undertaken in conjunction with the proposed Plan.

The land uses permitted within the proposed Project Area will conform with the City of Lafayette General Plan and Zoning Code regulations, as amended from time to time, and all other applicable state and local building codes and guidelines, as appropriate. Within the confines of General Plan Land Use designations, a range of development will be permitted. Population densities will conform to goals set forth in the General Plan. Building standards will conform to the building requirements of all applicable state statutes and all applicable local county and city codes and ordinances.

According to the State EIR Guidelines (Section 15180), "all public and private activities or undertakings pursuant to or in furtherance of a redevelopment plan constitute a single project, which shall be deemed approved at the time of the adoption of the Redevelopment Plan by the legislative body". It is recognized that an Environmental Impact Report (EIR) on a proposed redevelopment project is necessarily general in nature and cannot reflect detailed impacts of specific developments that will occur because the exact design, scope and location of such developments are generally not known at this point in time. It is for this reason that the State EIR Guidelines (Section 15180) state that "an EIR on a redevelopment plan shall be treated as a program EIR with no subsequent EIRs required for individual components of the redevelopment plan unless a subsequent EIR or a supplement to an EIR would be required by Sections 15162 or 15163".

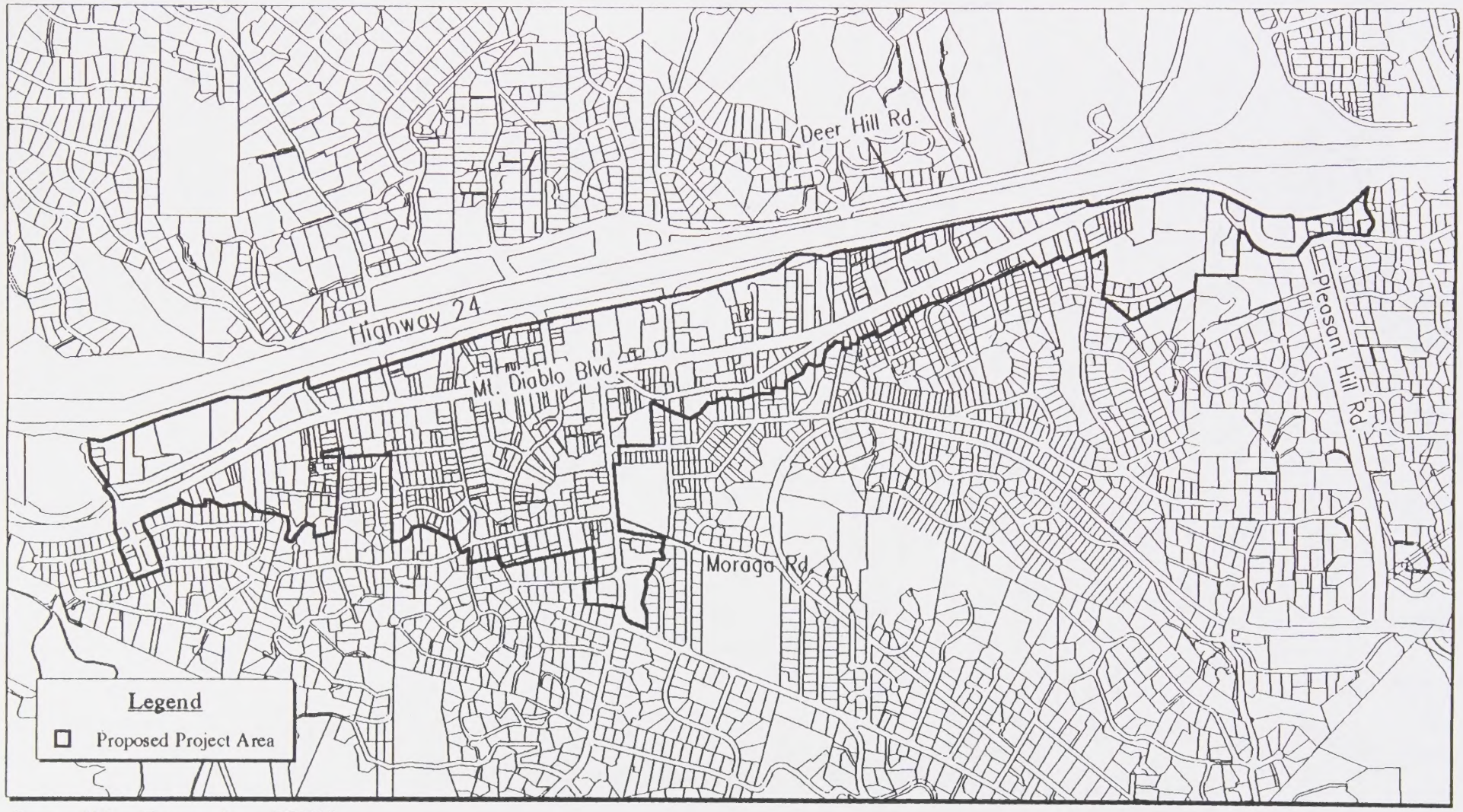
### Location and Boundaries

The proposed Project Area in its regional context is located within Contra Costa County, approximately 17 miles east of San Francisco, 6 miles south of Concord, and 45 miles north of San Jose. The City of Lafayette is bordered by Briones Regional Park to the north, the City of Walnut Creek and Pleasant Hill to the east, the City of Orinda to the west and the Town of Moraga to the south.

The specific location and boundaries of the approximately 294 acre proposed Project Area are presented in Figure 1.

### Relationship to General Plan Build-Out

It is anticipated that, for the most part, the environmental impacts resulting from implementation of the proposed project will be beneficial in that conditions of blight in the proposed Project Area will be reduced or eliminated over the long-term.




Source: Urban Futures, Inc. (8/22/94)

# Lafayette Redevelopment Project

## Proposed Project Area Map

Prepared By:
Urban Futures, Inc.
3111 N. Tustin Ave., Ste. 230
Orange, CA 92665

N

Not to Scale

Figure 1

Notwithstanding certain other limitations, effectiveness of the Plan shall not exceed 30 years from the date of its adoption. Plan implementation will be generally guided by market demand, property and business owner participation, and availability of funding sources. No specific development projects are known to the Agency at this time, hence, there is no way for the Agency to forecast or predict with great detail what degree of impact the proposed project will have upon the long-term growth of the proposed Project Area. The Agency can only project, based upon the success of most other redevelopment projects within the State of California, that the Project will be the catalyst for positive, long-term economic and physical growth within the proposed Project Area.

It is difficult, therefore, to determine to what degree of specificity to calculate potential growth and possible related negative impacts resulting from the proposed Project's long-term implementation. The Agency has determined that, because the proposed Project is a tool that can be used by the City of Murrieta to affect implementation of their General Plan, the appropriate measurement of Project impact is best evaluated in terms of General Plan build-out of the Project Area. As such, the Agency has based all projections within the EIR upon a General Plan build-out scenario. The exact degree of the proposed Project's influence upon ultimate General Plan build-out within the proposed Project Area is indeterminable at this time, but, it does allow the Agency to quantify, within parameters established by existing General Plan policies and guidelines, potential long-term Project-related impacts.

At this time, only the general nature of the redevelopment activities or projects are known. These include the rehabilitation and improvement of existing structures and infrastructure, the construction of needed public facilities such as community buildings, low income housing programs, infrastructure and circulation improvements, and grants, and/or loans to encourage long-term economic development.

**Purpose and Intended Use**

The Program EIR is intended for use by the general public, officials of the City of Lafayette, the Lafayette Redevelopment Agency, State level responsible agencies and other interested agencies wishing to evaluate the environmental effects of the proposed Project. It is designed to be a full disclosure document that will accompany the proposed Project through the adoption process.

The following agencies will be responsible for taking certain actions regarding the Plan's adoption:

1) Lafayette Planning Commission: evaluate the Project's conformity with the City General Plan and adopt respective conformity resolutions;

2) The Lafayette Redevelopment Agency: approves and recommends the Plan's adoption;

3) Lafayette City Council: approves and adopts the Redevelopment Plan prepared for the Project by City ordinance.

The Program EIR prepared for the proposed Project will not be used for any project approvals beyond adoption of the proposed Project itself. Beyond that approval, this document will be used as a base document for the evaluation of project-specific development proposals, whereby, in conjunction with CEQA requirements, a determination will be made regarding the need for further or additional specific environmental impact review and analysis.